



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**



# SDR

## Summary

Service Difficulty Reporting

April 26, 1998 - May 2, 1998

GENERAL AVIATION, ZAC-327

***You can improve Air Safety by reporting the problem when you see it!***

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### SECTION

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- II Domestic Service Difficulty Report
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ISSUE: 98-18



U.S. Department  
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# **SDR SUMMARY**

General Aviation, ZAC-327



This summary includes domestic (United States) Service Difficulty Reports (SDRs) entered into the data base for aircraft weighing 12,500 lbs. and below. It also includes reports on aeronautical products (engines, propellers, and components), and all helicopters. A separate section for International SDRs for aircraft weighing 12,500 lbs. and under has also been included. Under a data exchange agreement, International SDRs are submitted to the FAA by the Civil Aviation Authority of other countries (currently, Canada - CAN, and Australia - AUS). All reports are sorted by aircraft make, model group (basic model), and Joint Aircraft System/Component (JASC) code. Within each aircraft model group, the specific model shown may vary, but similar types of reports will be grouped together and listed in ascending order by their JASC code. Each field contains all information submitted to the FAA. Some fields are not included in order to make the summary easier to read. Additional information may be obtained by referring to the "operator control number." Send your request to the Aviation Data Systems Branch, AFS-620 at the address or phone below.

The Regulatory Support Division (AFS-600) has established a "HomePage" on the Internet through which the same information is available. There is a large quantity of other information available through the AFS-600 HomePage such as the most current SDR system codes (i.e., Joint Aircraft System/Component Codes). The SDR Question and Answer Section of the Summary will also be transferred to the AFS-600 HomePage to simplify the process of preparing the SDR Summaries in the PDF format each week. There are "hot buttons" to take you to other locations and sites where FAA Flight Standards Service Information is available. The AFS-600 "HomePage" address is:

**<http://www.mmac.jccbi.gov/afs/afs600>**

**"The Service Difficulty Reports in this publication are derived from unverified information submitted by the aviation community without FAA verification for accuracy. The number of SDRs submitted is not an indication of the mechanical reliability or fitness of an airline or individual operator, and the information should not be used as such."**

Comments are welcomed and may be directed to:

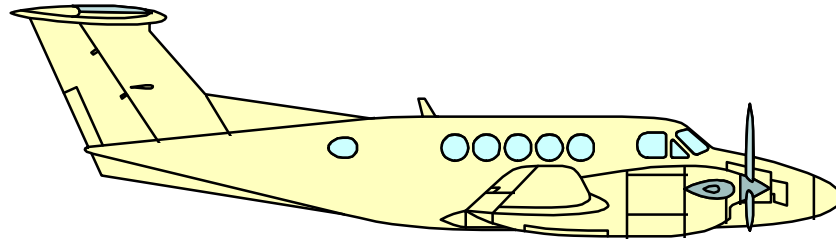
*Federal Aviation Administration  
Aviation Data Systems Branch, AFS-620  
P.O. Box 25082  
Oklahoma City, OK 73125-5029  
Phone: (405) 954-4171, Fax: (405) 954-4748*

Your continued participation is essential and is an integral part of ensuring aviation safety. Thank you for supporting the Service Difficulty Program! If you have any questions regarding this special notice you can contact John Jackson at (405) 954-6486, or Jim Gillespie at (405) 954-1141, or Blake McDonald at (405) 954-0307 in the Aviation Systems Branch (AFS-620). Their E-mail addresses are:

**[john\\_e\\_jackson@mmacmail.jccbi.gov](mailto:john_e_jackson@mmacmail.jccbi.gov)**

**[james\\_gillespie@mmacmail.jccbi.gov](mailto:james_gillespie@mmacmail.jccbi.gov)**

**[blake\\_mcdonald@mmacmail.jccbi.gov](mailto:blake_mcdonald@mmacmail.jccbi.gov)**



# **SIGNIFICANT OCCURRENCE REPORT**





U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

## **THE SIGNIFICANT OCCURRENCE REPORT**



The Significant Occurrence Report is a compilation all of the star bordered reports that appear in the General Aviation Service Difficulty Report (SDR) Summary, ZAC-327. The Significant Occurrence Report is used to highlight industry problem areas to field inspectors and the aviation public.

Limited analysis is performed by the Aviation Data Systems Branch, AFS-620 during the preparation of the "Significant Occurrence Report", which is generated each week and is included in the front of the Air Carrier SDR Summary. Significant Reports are hand selected by AFS-620's inspectors based on the individual merit of each report. The criteria for selection includes, but is not limited to, items that indicate high failure rates; items related to accidents or incidents; or design or maintenance failures which may affect the safe operation of the aircraft.

In some cases, this limited analysis of SDR data leads to the preparation of information bulletins which are routed to the appropriate product certification office for further investigation of the problem. The end result may be the issuance of an airworthiness directive (AD) by the Aircraft Certification Service (AIR) if warranted.

The Significant Occurrence Report (section I) of the weekly SDR Summary is not intended to be a summary of all significant events and should not be used as such. We recommend that you review further the applicable sections of the SDR summary that may be of interest.

# GENERAL AVIATION SIGNIFICANT OCCURRENCE REPORT

4/26/98 - 5/2/98    ISSUE: 98-18    ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3213	90965	BBAVIA				U-BOLT	BROKEN	1277	3/24/98
	6073	8KCAB				19805	RT MLG LEG		98ZZZX1630
*****	UPON LANDING, PILOT NOTED RIGHT MAIN LANDING GEAR WHEEL AND GEAR LEG MOVING BACK AND FORTH APPROXIMATELY 12 INCHES. FOUND BROKEN U-BOLT WHERE THE LANDING GEAR LEG COMES OUT OF THE FUSELAGE. U-BOLT BROKEN AT THE REAR.								
2701	800LS	BEECH				SPROCKET ASSY	CRACKED	6171	2/18/98
	BB457	200BEECH				1005241201	YOKE BS 100		98ZZZX966
*****	PILOT REPORTED YOKE POSITION 30 DEGREES OFF FROM LEVEL FLIGHT. PERFORMED VISUAL INSPECTION, FOUND PRIMARY SPROCKET ASSEMBLY WELD TO AFT CRACKED RESULTING IN NO AILERON CONTROL. RECOMMEND NDT PERIODICALLY.								
5511	5167M	BEECH				SPAR	CRACKED	7987	3/27/98
YEBR	M2043	C23			169620001603	16962000159	H STAB HINGE		98ZZZX1628
*****	CRACKS IN STABILATOR MAIN SPAR ADJACENT TO FUSELAGE HINGE ATTACHMENT FITTING. THIS AIRCRAFT IS USED FOR FLIGHT TRAINING. CRACKS POSSIBLY DUE TO FATIGUE. RECOMMEND DETAILED INSPECTION OF THIS AREA AT EACH INSPECTION INTERVAL.								
7120	9880R	BEECH				BRACKET	FAILED	3185	2/2/98
	D6437	M35				626089	ENGINE MOUNT	396	98ZZZX995
*****	DURING NORMAL ANNUAL INSPECTION, FOUND BOTH ENGINE MOUNTS BROKEN THROUGH THE MIDDLE. THIS CAUSED ENGINE TO LAY FARTHER DOWN ON ITS LEFT SIDE CAUSING FURTHER DAMAGE TO VALVE COVERS, COWLING, INTAKE MANIFOLD. MOUNTS HAD BROKEN SINCE LAST OIL CHANGE APPROXIMATELY 30 HOURS. PILOT WAS UNAWARE OF PROBLEM. SUBMITTER SUGGESTED DYE PENN INSPECTIONS OF PART ANYTIME ENGINE IS REMOVED FROM MOUNTS. MECHANIC DYE PENETRATE INSPECTED OTHER 2 MOUNTS, NO DEFECTS NOTED.								
2842	1525M	BEECH				TRANSMITTER	WRONG PART		3/27/98
	EA464	B36TC				58938000113	FUEL QUANTITY		98ZZZX1615
*****	FUEL STARVATION PROBLEM FOUND TO BE DUE TO INCORRECT FUEL QUANTITY TRANSMITTER HAD BEEN INSTALLED.								
7160	827VJ	BEECH			DONALDSON	AIR FILTER	MISMARKED		1/20/98
	TH1387	58				963890051	INDUCT AIR		98ZZZX761
*****	ORDERED PARTS FROM BEECH DISTRIBUTOR FOR INDUCTION AIR FILTER PN 96-38005-1. TWO BOXES MARKED WITH SAME PART NUMBER, BUT FILTER PART NUMBER INSIDE IS P/N 35-380035-7. THIS IS NOW THE 10TH TIME RECEIVED MISMARKED PARTS FROM THE BEECH FACTORY AND DISTRIBUTORS.								
5511	757WN	CESSNA				BRACKET	CRACKED	6500	2/23/98
D6VV	15280063	152				04320049	H STAB SPAR AFT		98ZZZX1629
*****	CRACK FOUND DURING ROUTINE 100 HOUR INSPECTION. CRACK FOUND IN BRACKET ASSY THAT ATTACHES TO REAR SPAR OF HORIZONTAL STABILIZER WHICH ALSO HOUSES FITTING FOR ELEVATOR. SUBMITTER RECOMMENDATIONS: CLOSE INSPECTION OF AREA TO POSSIBLY INCLUDE DYE PENETRANT AFTER PAINT REMOVAL.								
5551	8623J	CESSNA				ATTACH FITTING	WORN	3110	1/28/98
FE4R	15066523	150G					HORIZONTAL STAB		98ZZZX978
*****	DURING AN ANNUAL INSPECTION, FOUND THE HORIZONTAL STABILZIER LOOSE AT THE REAR ATTACHMENTS. THE STABILIZER COULD BE MOVED UP AND DOWN ABOUT .25 INCH. THE REAR ATTACH FITTINGS WERE FOUND TO BE EXCESSIVELY WORN.								
2710	62348	CESSNA				CABLE	FRAYED	11700	4/8/98
	17275254	172P				0510105260	RT AILERON		98ZZZX1624
*****	DURING INCORPORATION OF SK 172-149 KIT TO C/W SB 97-1, FOUND RT AILERON DIRECT CABLE FRAYED WHERE IT TRAVELS UNDER THE RT OUTBOARD PULLEY LOCATED AT THE LOWER AFT DOOR FRAME AREA. THIS IS A VERY DIFFICULT AREA TO INSPECT DURING ROUTINE INSPECTIONS. THE FRAYING WAS ONLY VISIBLE ONCE THE PULLEY WAS REMOVED. AT LEAST 8 BROKEN STRANDS, 16 ENDS, WERE VISIBLE. SUBMITTER RECOMMENDED REMOVING PULLEYS EVERY 5,000 HOURS OR INSTALL INSPECTION PANELS AFT OF THE PULLEY FOR PROPER INSPECTION.								

\*\*\*\*\* DENOTES SIGNIFICANT OCCURRENCE

## GENERAL AVIATION SIGNIFICANT OCCURRENCE REPORT (cont'd)

4/26/98 To 5/2/98 ISSUE: 98-18 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
5512	365ES	CESSNA				RIVETS	FAILED		2/20/98
	17280023	172R					HORIZONTAL STAB		98ZZZX974
*****	DURING 100-HOUR INSPECTION, FOUND 4 OF THE AN426 RIVETS SECURING THE UPPER HORIZONTAL STABILIZER SKIN PULLED COMPLETELY THROUGH ON THE LEFT SIDE. ALL OF THE REMAINING RIVETS BOTH LEFT AND RIGHT SIDE SHOWED SIGNS OF WORKING THESE RIVETS ARE INBOARD UNDER THE STABILIZER ROOT FAIRING. OLDER 172'S USE UNIVERSAL HEAD RIVETS WITH NO PROBLEMS OF WORKING. OBTAINED REPAIR PROCEDURE FROM CESSNA AND PROBLEM WAS CORRECTED.								
7322	91QS	CESSNA	LYC			CARBURETOR	DEFECTIVE		2/16/98
	17268167	172N	O360A4M			MA4SPA	THROTTLE ARM		98ZZZX972
*****	INSPECTION OF THE CARBURETOR DETERMINED THE THROTTLE ARM BECAME LOOSE ON THE SHAFT. THIS CONDITION RESULTED IN LOSS OF CONTROL OF ENGINE RPM. THE NUT AND COTTER PIN WERE INTACT. SUSPECT THE ORIGINAL INSTALLATION WAS NOT PROPERLY INSTALLED AND TORQUED ALLOWING THE ARM TO BECOME LOOSE. IT IS SUGGESTED THAT CORRECT INSTALLATION AND TORQUE WOULD PREVENT THIS CONDITION.								
3246	9620Q	CESSNA				WHEEL	FAILURE	1432	4/4/98
	18503780	A185F				D301185	MLG		98ZZZX1559
*****	DURING LANDING, THE ALUMINUM WHEEL BROKE CAUSING A COMPLETE FAILURE OF THE WHEEL AND BRAKE ASSEMBLY. REASON FOR FAILURE IS UNKNOWN. SUBMITTER RECOMMENDED A THOROUGH VISUAL INSPECTION OF THE WHEEL HALVES AND CHECK FOR PROPER TORQUE ON THE WHEEL BOLTS DURING AN ANNUAL INSPECTION.								
5500	3772Y	CESSNA				MOORING RING	FAILED		2/21/98
	21058272	210D				0422344	TAIL		98ZZZX993
*****	THE TAIL TIE-DOWN RING BROKE WHEN THE OWNER ATTEMPTED A MINOR RE-ALIGNMENT. REMOVAL OF THE FAILED PARTS REVEALED AN UNAPPROVED PART HAD BEEN INSTALLED BY SOMEONE IN THE PAST. THIS RING BOLT CAN BE FOUND IN MOST ANY HARDWARE STORE. IT HAD BEEN WIRE FORMED OF LOW QUALITY STEEL WIRE, .25 INCH IN DIAMETER. A FIELD WELD HAD BEEN USED TO CLOSE THE RING AT THE BOLT SHANK. COMMON HARDWARE .25 INCH COARSE THREAD NUTS HAD BEEN USED TO SECURE THE RING IN THE AIRPLANE.								
3230	3141L	CESSNA				IDLER GEAR	FAILED	10097	2/23/98
	310J0141	310J				08421022	NLG RETRACT		98ZZZX983
*****	IDLER IN NOSE GEAR RETRACT LINKAGE BROKE DURING RETRACTION DUE TO INTERFERENCE OF NOSE GEAR AND WHEELWELL DOORS. NOSE GEAR FAILED TO EXTEND DUE TO LOSS OF NITROGEN CHARGE IN STRUT. STRUT HAD BEEN OVERSERVICED WITH HYDRAULIC FLUID. WITH THE STRUT BEING OVERSERVICED WITH FLUID, THE EXTENSION APPEARED NORMAL ON THE GROUND. PROPER SERVICING OF OLEO STRUT WOULD HAVE CAUSED A COLLAPSED STRUT WHEN THE NITROGEN CHARGE WAS LOST AND A COMPLETE PRE-FLIGHT INSPECTION WOULD HAVE NOTED THIS DISCREPANCY.								
5700	6076D	PIPER				STRUT	RUSTED	2500	1/22/98
	224730	PA22150				855592	WING		98ZZZX760
*****	WING STRUTS WERE INSPECTED IAW AD 93-10-06 AND SB 528D IN DEC '96 AND FOUND OK. DURING '97 ANNUAL, OWNER HAD ALL FOUR STRUTS INSPECTED AND MODIFIED. STC SA 4635NM WAS DONE TO STRUTS. OLD FORK BARREL WAS CUT OFF BY TECHNICIANS. FOUND 2 STRUTS RUSTED SEVERELY ON THE INSIDE OF THE STRUT WHERE THE DOOR CATCHES ARE MOUNTED. TWO NEW STRUTS USED FOR STC COMPLETION. THE OWNER, WHO IS ALSO AN IA, WOULD LIKE TO ADVISE THAT THE AD 93-10-06 DOES NOT SPECIFICALLY ADDRESS THIS AREA OF STRUTS FOR INSPECTION. THE AD DIRECTS ONE TO SB 528D.								
8011	6484P	PIPER			PREAIR	STARTER	INOPERATIVE		2/21/98
	241602	PA24250				PM1201	RING GEAR		98ZZZX982
*****	THIS NEW STARTER WOULD NOT ENGAGE THE ENG RING GEAR WITHOUT MANUAL MANIPULATION OF THE BENDIX DRIVE PINION GEAR EVEN THOUGH IT WAS BEING SUPPLIED WITH 14V BATTERY POWER THROUGH COPPER AIRCRAFT CABLES. THE STARTER DID START THE ENG, HOWEVER, UPON ENG SHUTDOWN AND RESTART, IT FAILED TO ENGAGE THE RING GEAR WITHOUT MANUAL MANIPULATION OF THE PINION GEAR. THIS PERMANENT MAGNET STARTER CREATED SUCH A LARGE MAGNETIC FIELD DURING ENGINE ROTATION THAT IT CAUSED THE AIRPLANE WET COMPASS TO SWING MORE THAN 90 DEGREES. LAMAR STARTER (PM1202) WAS REMOVED AND REPLACED WITH A FRESHLY OVERHAULED ELECTROSYSTEMS STARTER (MZ422R) WHICH STARTED THE ENGINE SEVERAL TIMES WITHOUT AFFECTING THE MAGNETIC COMPASS.								
3213	9375N	PIPER				HOUSING	BROKEN		3/25/98
	28R35084	PA28R200				67035	LT MLG STRUT		98ZZZX1623
*****	ROUTINE LUBE OF GEAR FOUND BROKEN LT LANDING GEAR FORWARD SWIVEL SHAFT. CASTING SHOULD HAVE LARGE RADIUS AT AREA USING A BEARING SPACER WITH A MATCHING INSIDE RADIUS. CAUSE - HARD LANDINGS/STRESS CONCENTRATION.								

\*\*\*\*\* DENOTES SIGNIFICANT OCCURRENCE

## GENERAL AVIATION SIGNIFICANT OCCURRENCE REPORT (cont'd)

4/26/98 To 5/2/98 ISSUE: 98-18 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
8510	4149Y	PIPER	LYC			RING GEAR	WRONG PART	43	4/14/98
	2843128	PA28181	O360A4M			LW10551	STARTER		98ZZZX1626
*****	DURING ROUTINE INSPECTION, MECHANIC NOTICED THERE WAS ABNORMAL AMOUNT OF WEAR ON THE STARTER RING GEAR FOR ONLY HAVING 43 HOURS TT ON THE PART. UPON FURTHER INSPECTION, FOUND THE WRONG P/N RING GEAR INSTALLED. THE CORRECT RING GEAR IS P/N 72566 WHICH IS FOR A RT ROTATING ENGINE. THE P/N LW-10551 RING GEAR IS FOR A LT ROTATING ENGINE. THIS IS EVIDENCED WHILE SITTING IN THE PILOT SEAT, THE RING GEAR BEVEL (CHAMFER SIDE) SHOULD BE ON THE RIGHT SIDE FOR RT ROTATION, AND LEFT SIDE FOR LT ROTATION. ALTHOUGH THERE WERE WEAR MARKS, SYSTEM OPERATIONS WERE NORMAL.								
5521	35497	PIPER				SPAR	CRACKED	6777	1/21/98
	318052039	PA31350					LT/RT ELEVATOR		98ZZZX976
*****	UPON C/W PIPER SB 998, BOTH ELEVATOR SPARS WERE CRACKED .50 INCH IN FROM OUTBOARD END. (BOTH SPARS REPLACED). ELEVATOR SPAR REPLACEMENT NR'S 40075-020 AND DASH 021 ARE IMPROVED DESIGNS.								
2750	21113	PIPER				CABLE	FRAYED	7100	1/30/98
CE8S	447995040	PA44180				62701101	FLAP		98ZZZX997
*****	DURING PREFLIGHT, DISCREPANCY WAS FOUND THAT WHEN THE FLAPS ARE SELECTED TO 10 DEGREES, FLAPS BARELY MOVED. FURTHER INSPECTION REVEALED FLAP CABLE WAS FRAYED ONLY TO TWO STRANDS. THE AREA IN WHICH THE CABLE FRAY IS LOCATED IN AN AREA THAT IS NOT EASILY ACCESSIBLE TO INSPECT. CABLE WAS REPLACED AND RIGGED TO MANUFACTURER'S SPECIFICATION.								
5313	76PK	RHNFLU				LONGERON	CRACKED		2/2/98
	15	EXTRA300				PC24000A0	HOR STAB ATTACH		98ZZZX763
*****	DURING A MAINTENANCE PROCEDURE INVOLVING THE REMOVAL OF HORIZONTAL STABILIZER AND FUSELAGE FABRIC, FOUND A CRACK IN THE UPPER LONGERON AT THE HORIZONTAL STABILIZER FORWARD ATTACH POINT. THIS LOCATION CANNOT BE SEEN DURING NORMAL INSPECTION PROCEDURES. SB 300-2-95 INSPECTION OF UPPER LONGERON IN FRONT OF HORIZONTAL STABILIZER ATTACHMENT DEPICTS A LOCATION WHICH NO DEFECT WAS FOUND ON THIS PARTICULAR AIRCRAFT. SUBMITTER RECOMMENDED REMOVING HORIZONTAL STABILIZER AND INSPECT THE AREA BETWEEN THE FORWARD STABILIZER ATTACH BRACKETS. PARTICULARLY, AT THE WELDS, THIS CRACK WAS LOCATED ON THE AIRCRAFT'S RIGHT SIDE.								

(End of GENERAL AVIATION SIGNIFICANT OCCURRENCE REPORT)

**FEDERAL AVIATION ADMINISTRATION**  
**SIGNIFICANT OCCURRENCE REPORT INDEX**

Showing Specific Part Numbers and Aircraft Model by Year

FOR THE PERIOD OF: 4/26/98 To 5/2/98

<u>PART NUMBER</u>		<u>TOTAL</u>	<u>YEAR</u>											
<u>PART NAME</u>	<u>ACFT MODEL</u>		<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>
<b>0422344</b>														
MOORING RING	210D	<b>1</b>	-	-	-	-	-	-	-	-	-	-	-	1
<b>TOTAL of # 0422344 -----</b>		<b>1</b>	-	-	-	-	-	-	-	-	-	-	-	1
<b>04320049</b>														
BRACKET	152	<b>1</b>	-	-	-	-	-	-	-	-	-	-	-	1
	152	<b>7</b>	-	-	-	1	-	1	-	1	1	1	1	1
<b>TOTAL of # 04320049 -----</b>		<b>8</b>	-	-	-	1	-	1	-	1	1	1	1	2
<b>0510105260</b>														
CABLE	172N	<b>1</b>	-	-	-	-	1	-	-	-	-	-	-	-
	172P	<b>1</b>	-	-	-	-	-	-	-	-	-	-	-	1
<b>TOTAL of # 0510105260 -----</b>		<b>2</b>	-	-	-	-	1	-	-	-	-	-	-	1
<b>08421022</b>														
BELL CRANK	320A	<b>1</b>	-	-	-	-	1	-	-	-	-	-	-	-
	T310Q	<b>1</b>	-	-	-	-	1	-	-	-	-	-	-	-
BELL CRANK IDLER	310Q	<b>1</b>	-	-	-	1	-	-	-	-	-	-	-	-
BELLCRANK	310L	<b>1</b>	-	-	-	-	-	-	-	-	1	-	-	-
	310Q	<b>2</b>	-	-	-	-	-	-	1	-	-	-	-	1
	310R	<b>1</b>	-	-	-	-	-	-	-	1	-	-	-	-
	320D	<b>1</b>	-	-	-	-	-	1	-	-	-	-	-	-
	320F	<b>1</b>	-	-	-	-	-	-	-	-	-	-	1	-
BELLCRANK IDLER	320B	<b>1</b>	-	-	-	-	-	-	-	-	-	-	1	-



**FAA SIGNIFICANT OCCURRENCE REPORT INDEX 4/26/98 To 5/2/98 (cont'd)**

<u>PART NUMBER</u>		<u>YEAR</u>													
<u>PART NAME</u>	<u>ACFT MODEL</u>	<u>TOTAL</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	
<b>08421022</b>															
BELLCRANK IDLER	320B	1	-	-	-	-	-	-	-	-	-	1	-	-	
IDLER BELLCRANK	310P	1	-	-	-	-	-	-	-	-	-	1	-	-	
IDLER GEAR	310J	1	-	-	-	-	-	-	-	-	-	-	-	1	
<b>TOTAL of # 08421022 -----</b>		<b>13</b>	-	-	-	1	2	1	1	1	1	2	2	2	
<b>0A876299</b>															
CARTRIDGE SQUIB	unknown	1	-	-	-	-	-	-	-	-	-	-	-	1	
<b>TOTAL of # 0A876299 -----</b>		<b>1</b>	-	-	-	-	-	-	-	-	-	-	-	1	
<b>1005241201</b>															
SPROCKET ASSY	200BEECH	1	-	-	-	-	-	-	-	-	-	-	-	1	
<b>TOTAL of # 1005241201 -----</b>		<b>1</b>	-	-	-	-	-	-	-	-	-	-	-	1	
<b>16962000159</b>															
FRONT SPAR	C23	1	-	-	-	-	-	1	-	-	-	-	-	-	
SPAR	C23	1	-	-	-	-	-	-	-	-	-	-	-	1	
<b>TOTAL of # 16962000159 -----</b>		<b>2</b>	-	-	-	-	-	1	-	-	-	-	-	1	
<b>19805</b>															
U-BOLT	7GCAA	1	-	-	-	-	-	-	1	-	-	-	-	-	
	8KCAB	2	-	-	-	-	-	-	-	-	1	-	-	1	
<b>TOTAL of # 19805 -----</b>		<b>3</b>	-	-	-	-	-	-	1	-	1	-	-	1	
<b>58938000113</b>															
TRANSMITTER	B36TC	1	-	-	-	-	-	-	-	-	-	-	-	1	
<b>TOTAL of # 58938000113 -----</b>		<b>1</b>	-	-	-	-	-	-	-	-	-	-	-	1	
<b>626089</b>															
BRACKET	M35	1	-	-	-	-	-	-	-	-	-	-	-	1	
<b>TOTAL of # 626089 -----</b>		<b>1</b>	-	-	-	-	-	-	-	-	-	-	-	1	
<b>62701101</b>															
CABLE	PA28161	1	-	-	-	-	-	-	-	-	1	-	-	-	
	PA44180	1	-	-	-	-	-	-	-	-	-	-	-	1	
<b>TOTAL of # 62701101 -----</b>		<b>2</b>	-	-	-	-	-	-	-	-	1	-	-	1	

**FAA SIGNIFICANT OCCURRENCE REPORT INDEX 4/26/98 To 5/2/98 (cont'd)**

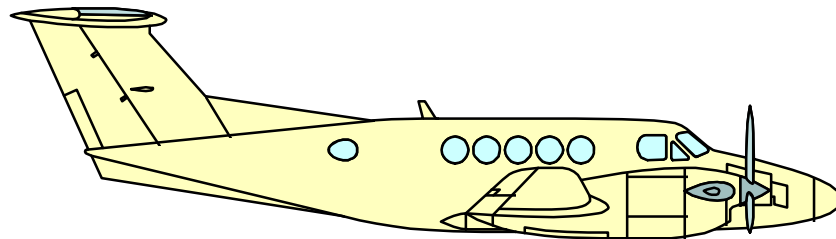
<u>PART NUMBER</u>		<u>YEAR</u>													
<u>PART NAME</u>	<u>ACFT MODEL</u>	<u>TOTAL</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	
67035															
HOUSING	PA28R200	1	-	-	-	-	-	-	-	-	-	-	-	1	
TOTAL of # 67035 -----		1	-	-	-	-	-	-	-	-	-	-	-	1	
855592															
STRUT	PA22150	1	-	-	-	-	-	-	-	-	-	-	-	1	
TOTAL of # 855592 -----		1	-	-	-	-	-	-	-	-	-	-	-	1	
963890051															
AIR FILTER	58	1	-	-	-	-	-	-	-	-	-	-	-	1	
TOTAL of # 963890051 -----		1	-	-	-	-	-	-	-	-	-	-	-	1	
D301185															
WHEEL	A185F	1	-	-	-	-	-	-	-	-	-	-	-	1	
TOTAL of # D301185 -----		1	-	-	-	-	-	-	-	-	-	-	-	1	
LW10551															
RING GEAR	PA28181	1	-	-	-	-	-	-	-	-	-	-	-	1	
TOTAL of # LW10551 -----		1	-	-	-	-	-	-	-	-	-	-	-	1	
MA4SPA															
CARBURETOR	172	1	-	-	-	-	-	-	-	-	1	-	-	-	
	172L	1	-	-	-	-	-	1	-	-	-	-	-	-	
	172M	2	-	-	-	-	-	1	-	1	-	-	-	-	
	172N	2	-	-	-	-	-	-	-	1	-	-	-	1	
	LONG EZ	1	-	-	-	-	-	-	-	-	-	-	-	1	
	PA28140	1	-	-	-	-	-	-	-	-	1	-	-	-	
	PA28161	1	-	-	-	-	-	-	-	-	-	-	1	-	
	unknown	1	-	-	-	-	-	-	-	-	1	-	-	-	
TOTAL of # MA4SPA -----		10	-	-	-	-	-	2	-	2	3	-	1	2	
PC24000A0															
LONGERON	EXTRA300	1	-	-	-	-	-	-	-	-	-	-	-	1	
TOTAL of # PC24000A0 -----		1	-	-	-	-	-	-	-	-	-	-	-	1	

**FAA SIGNIFICANT OCCURRENCE REPORT INDEX 4/26/98 To 5/2/98 (cont'd)**

<b><u>PART NUMBER</u></b>		<b><u>YEAR</u></b>												
<b><u>PART NAME</u></b>	<b><u>ACFT MODEL</u></b>	<b><u>TOTAL</u></b>	<b><u>1987</u></b>	<b><u>1988</u></b>	<b><u>1989</u></b>	<b><u>1990</u></b>	<b><u>1991</u></b>	<b><u>1992</u></b>	<b><u>1993</u></b>	<b><u>1994</u></b>	<b><u>1995</u></b>	<b><u>1996</u></b>	<b><u>1997</u></b>	<b><u>1998</u></b>
<b>PM1201</b>														
STARTER	PA24250	<b>1</b>	-	-	-	-	-	-	-	-	-	-	-	1
<b>TOTAL of # PM1201 - - - - -</b>		<b>1</b>	-	-	-	-	-	-	-	-	-	-	-	1
<hr/>														
<b>TOTAL for ALL (42) PART NUMBERS: - - - -</b>		<b>52</b>	-	-	-	2	3	5	2	4	7	3	4	22
<hr/>														
<b>END OF SIGNIFICANT OCCURRENCE REPORT INDEX</b>														
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# **DOMESTIC SERVICE DIFFICULTY REPORT**



# DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT

4/26/98 - 5/2/98 ISSUE: 98-18 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3220	94FA 0017	AMTRJG QUESTAIR20				GEAR 2045000	COLLAPSED NLG	2/15/98 98ZZZX991	
	UPON RETRACTION OF THE LANDING GEAR, PILOT NOTED THE 'RED LIGHT' REMAINED ILLUMINATED ON THE INSTRUMENT PANEL. THIS LIGHT IS A POSSIBLE INDICATION THE LANDING GEAR IS NOT FULLY RETRACTED. THE PILOT CONTINUED THE FLIGHT TO GREENSBORO WHERE UPON LANDING THE NOSE GEAR FAILED AND THE PILOT LOST CONTROL OF THE AIRCRAFT. THE AIRCRAFT FLIPPED OVER AND SUSTAINED SUBSTANTIAL DAMAGE. THE PILOT WAS HOSPITALIZED, BUT RECEIVED ONLY MINOR INJURIES AND WAS RELEASED THE FOLLOWING DAY.								
3213	90965 6073	BBAVIA 8KCAB				U-BOLT 19805	BROKEN RT MLG LEG	1277 98ZZZX1630	3/24/98
*****	UPON LANDING, PILOT NOTED RIGHT MAIN LANDING GEAR WHEEL AND GEAR LEG MOVING BACK AND FORTH APPROXIMATELY 12 INCHES. FOUND BROKEN U-BOLT WHERE THE LANDING GEAR LEG COMES OUT OF THE FUSELAGE. U-BOLT BROKEN AT THE REAR.								
2701	800LS BB457	BEECH 200BEECH				SPROCKET ASSY 1005241201	CRACKED YOKE BS 100	6171 98ZZZX966	2/18/98
*****	PILOT REPORTED YOKE POSITION 30 DEGREES OFF FROM LEVEL FLIGHT. PERFORMED VISUAL INSPECTION, FOUND PRIMARY SPROCKET ASSEMBLY WELD TO AFT CRACKED RESULTING IN NO AILERON CONTROL. RECOMMEND NDT PERIODICALLY.								
5511 YEHR	5167M M2043	BEECH C23			169620001603	SPAR 16962000159	CRACKED H STAB HINGE	7987 98ZZZX1628	3/27/98
*****	CRACKS IN STABILATOR MAIN SPAR ADJACENT TO FUSELAGE HINGE ATTACHMENT FITTING. THIS AIRCRAFT IS USED FOR FLIGHT TRAINING. CRACKS POSSIBLY DUE TO FATIGUE. RECOMMEND DETAILED INSPECTION OF THIS AREA AT EACH INSPECTION INTERVAL.								
5210	9617Y CD583	BEECH 35B33				HANDLE 95380010	WORN CABIN DOOR	2600 98ZZZX958	1/30/98
	DOOR HANDLE WILL UNLOCK WITHOUT DEPRESSING LOCK RELEASE BUTTON IN HANDLE. ALTHOUGH THIS HANDLE IS THE SAME PART NUMBER AS HANDLES ON OTHER AIRCRAFT THAT AD 97-14-15 APPLIES TO, THE AD DOES NOT LIST THE 35-B33. SUBMITTER SUGGESTED THE AD SHOULD BE CORRECTED TO INCLUDE MODELS OMITTED WITH THIS SAME HANDLE.								
5210	9617Y CD583	BEECH 35B33				PLATE 35400395	WORN CABIN DOOR	2600 98ZZZX959	1/30/98
	DOOR HANDLE WILL UNLOCK WITHOUT DEPRESSING LOCK RELEASE BUTTON IN HANDLE. ALTHOUGH THIS HANDLE IS THE SAME PART NUMBER AS HANDLES ON OTHER AIRCRAFT THAT AD 97-14-15 APPLIES TO, THE AD DOES NOT LIST THE 35-B33. SUBMITTER SUGGESTED THE AD SHOULD BE CORRECTED TO INCLUDE MODELS OMITTED WITH THIS SAME HANDLE.								
7120	9880R D6437	BEECH M35				BRACKET 626089	FAILED ENGINE MOUNT	3185 396	2/2/98 98ZZZX995
*****	DURING NORMAL ANNUAL INSPECTION, FOUND BOTH ENGINE MOUNTS BROKEN THROUGH THE MIDDLE. THIS CAUSED ENGINE TO LAY FARTHER DOWN ON ITS LEFT SIDE CAUSING FURTHER DAMAGE TO VALVE COVERS, COWLING, INTAKE MANIFOLD. MOUNTS HAD BROKEN SINCE LAST OIL CHANGE APPROXIMATELY 30 HOURS. PILOT WAS UNAWARE OF PROBLEM. SUBMITTER SUGGESTED DYE PENN INSPECTIONS OF PART ANYTIME ENGINE IS REMOVED FROM MOUNTS. MECHANIC DYE PENETRATE INSPECTED OTHER 2 MOUNTS, NO DEFECTS NOTED.								
2841	1525M EA464	BEECH B36TC				SIGHT GAUGE 00238100215	STUCK RT FUEL QTY	3/27/98 98ZZZX1614	
	RIGHT FUEL TANK SIGHT GAUGE STUCK AT 35 GALLONS. REMOVED AND REPLACED SIGHT GAUGE. SUGGEST DURING ANNUAL INSPECTION, CHECK FOR CORRECT OPERATION OF SIGHT GAUGES.								
2842	1525M EA464	BEECH B36TC				TRANSMITTER 58938000113	WRONG PART FUEL QUANTITY	3/27/98 98ZZZX1615	
*****	FUEL STARVATION PROBLEM FOUND TO BE DUE TO INCORRECT FUEL QUANTITY TRANSMITTER HAD BEEN INSTALLED.								

\*\*\*\*\* DENOTES SIGNIFICANT OCCURRENCE

## DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT (cont'd)

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7160	827VJ	BEECH			DONALDSON	AIR FILTER	MISMARKED		1/20/98
	TH1387	58				963890051	INDUCT AIR		98ZZZX761
*****	ORDERED PARTS FROM BEECH DISTRIBUTOR FOR INDUCTION AIR FILTER PN 96-38005-1. TWO BOXES MARKED WITH SAME PART NUMBER, BUT FILTER PART NUMBER INSIDE IS P/N 35-380035-7. THIS IS NOW THE 10TH TIME RECEIVED MISMARKED PARTS FROM THE BEECH FACTORY AND DISTRIBUTORS.								
2612	388AV	BEECH				SENSOR	MALFUNCTIONED		4/11/98
AJZA	U188	C99				302158	RT ENGINE		98ZZZX1617
	APPROXIMATELY 10 MINUTES AFTER TAKEOFF, THE RT ENGINE FIRE WARNING LIGHT CAME ON. TheRE WAS NO OTHER INDICATION OF FIRE AND THE ENGINE WAS SHUT DOWN. THE AIRCRAFT RETURNED TO L15 WITH NO PROBLEMS. THE LIGHTS WENT OUT AFTER AIRCRAFT WAS PARKED. INVESTIGATED RECORDS AND NOTICED THE AIRCRAFT WAS WASHED THE NIGHT BEFORE, DRIED AND SEALED LOWER DETECTOR. SYSTEM OPERATIONALLY CHECKED GOOD.								
5511	757WN	CESSNA				BRACKET	CRACKED	6500	2/23/98
D6VV	15280063	152				04320049	H STAB SPAR AFT		98ZZZX1629
*****	CRACK FOUND DURING ROUTINE 100 HOUR INSPECTION. CRACK FOUND IN BRACKET ASSY THAT ATTACHES TO REAR SPAR OF HORIZONTAL STABILIZER WHICH ALSO HOUSES FITTING FOR ELEVATOR. SUBMITTER RECOMMENDATIONS: CLOSE INSPECTION OF AREA TO POSSIBLY INCLUDE DYE PENETRANT AFTER PAINT REMOVAL.								
5551	8623J	CESSNA				ATTACH FITTING	WORN	3110	1/28/98
FE4R	15066523	150G					HORIZONTAL STAB		98ZZZX978
*****	DURING AN ANNUAL INSPECTION, FOUND THE HORIZONTAL STABILZIER LOOSE AT THE REAR ATTACHMENTS. THE STABILIZER COULD BE MOVED UP AND DOWN ABOUT .25 INCH. THE REAR ATTACH FITTINGS WERE FOUND TO BE EXCESSIVELY WORN.								
2710	62348	CESSNA				CABLE	FRAYED	11700	4/8/98
	17275254	172P				0510105260	RT AILERON		98ZZZX1624
*****	DURING INCORPORATION OF SK 172-149 KIT TO C/W SB 97-1, FOUND RT AILERON DIRECT CABLE FRAYED WHERE IT TRAVELS UNDER THE RT OUTBOARD PULLEY LOCATED AT THE LOWER AFT DOOR FRAME AREA. THIS IS A VERY DIFFICULT AREA TO INSPECT DURING ROUTINE INSPECTIONS. THE FRAYING WAS ONLY VISIBLE ONCE THE PULLEY WAS REMOVED. AT LEAST 8 BROKEN STRANDS, 16 ENDS, WERE VISIBLE. SUBMITTER RECOMMENDED REMOVING PULLEYS EVERY 5,000 HOURS OR INSTALL INSPECTION PANELS AFT OF THE PULLEY FOR PROPER INSPECTION.								
2731	2709T	CESSNA				ACTUATOR	CORRODED	2682	2/12/98
FTSR	17251609	172E			12600491	0310625	RT STAB TRIM		98ZZZX992
	DURING ROUTINE ANNUAL, TRIM ACTUATOR WAS FOUND ALMOST COMPLETELY STRIPPED. DUE TO CORROSION VERY FEW THREADS REMAINED INSIDE ACTUATOR. AIRCRAFT HAD BEEN ON F LOATS MOST OF ITS LIFE.								
5412	365ES	CESSNA				FIREWALL	CRACKED		2/20/98
	17280023	172R					LT COWL SHOCK MT		98ZZZX973
	DURING 100-HOUR INSPECTION, FOUND FIREWALL CRACKED AT THE LOWER LEFT COWL SHOCK MOUNT BELOW THE BATTERY BOX. VISIBLE PORTION OF CRACK WAS APPROXIMATELY .50 INCH LONG. AFTER CLOSER EXAMINATION FROM INSIDE THE CABIN, THE CRACK APPEARED TO BE ABOUT 3 INCHES LONG AND ORIGINATING FROM A RIVET HOLE. DOUBLER WAS FABRICATED AND INSTALLED ON INSIDE OF CABIN. CRACK DEVELOPED POSSIBLY FROM IMPROPER SHEET METAL PRACTICES AT MANUFACTURE.								
5512	365ES	CESSNA				RIVETS	FAILED		2/20/98
	17280023	172R					HORIZONTAL STAB		98ZZZX974
*****	DURING 100-HOUR INSPECTION, FOUND 4 OF THE AN426 RIVETS SECURING THE UPPER HORIZONTAL STABILIZER SKIN PULLED COMPLETELY THROUGH ON THE LEFT SIDE. ALL OF THE REMAINING RIVETS BOTH LEFT AND RIGHT SIDE SHOWED SIGNS OF WORKING THESE RIVETS ARE INBOARD UNDER THE STABILZIER ROOT FAIRING. OLDER 172'S USE UNIVERSAL HEAD RIVETS WITH NO PROBLEMS OF WORKING. OBTAINED REPAIR PROCEDURE FROM CESSNA AND PROBLEM WAS CORRECTED.								
7603	1098U	CESSNA				THROTTLE CONTROL	FAILED		1/15/98
	17266847	172M				C2995050102	ENGINE		98ZZZX975
	PILOT REPORTED A SNAP OR SOMETHING GAVE AS HE ADVANCED THROTTLE ON GROUND. ENGINE RPM STAYED AT 1,100 RPM. INVESTIGATION REVEALED THAT CABLE OUTER HOUSING SLIPPED OUT OF METAL RETAINER AT CLAMP NEAR CARBURETOR. OUTER HOUSING APPARENTLY SHRUNK FROM HEAT. REPLACEMENT PART FROM CESSNA HAS RUBBERIZED HOUSING. EXISTING UNITS SHOULD BE INSPECTED.								

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2823	61858 18052807	CESSNA 180K				SELECTOR 98510675	CORRODED FUEL SYSTEM	2386	8/19/97 98ZZZX961
FOUND FUEL SELECTOR VALVE CORRODED AND FLAKING ON ONE SIDE. THE ONLY WAY TO SEE THIS SIDE OF THE VALVE IS WITH A MIRROR THROUGH THE INSPECTION PANEL ON THE BOTTOM OF THE AIRCRAFT. AIRCRAFT IS ON FLOATS.									
5753	735YG 18265786	CESSNA 182Q				FLAP	JAMMED RT WING	3239	11/18/97 98ZZZX762
ON APPROACH, PILOT SELECTED THE FLAP POSITION. THE RIGHT FLAP JAMMED AND TWISTED INTERFERING WITH CONTROL OF THE RIGHT AILERON. PILOT LANDED WITHOUT INCIDENT. SUSPECT CAUSE WAS THE WING ATTACHING POINT SHOWED THE ROLLERS BEING LUBRICATED, BUT WERE WORN; THUS, FAILING, CAUSING FLAP TO BIND WHEN EXTENDED.									
8010	511CC R18200979	CESSNA R182				SOLENOID S15771	FAILED STARTER		1/19/98 98ZZZX1627
OWNER COMPLAINED OF STARTER BENDIX HARD TO ENGAGE. ON INSP, TURNED ON MASTER SWITCH AND ENGINE STARTED CRACKING. STARTER SOLENOID WAS STUCK ENGAGED. REPLACED STARTER SOLENOID P/N S1577-1. MASTER SOLENOID LOOKED BURNED, SO IT WAS REPLACED WITH P/N S1580-1. CHECKED BATTERY AND FOUND IT VERY LOW ON WATER, THE CASE WAS WARPED AND THE TERMINALS BLACK AND PARTIALLY MELTED. BELIEVE THE STARTER SOLENOID WAS ENGAGED IN-FLIGHT WHICH CAUSED THE BATTERY TO OVERHEAT. REPLACED BATTERY AND STARTER BENDIX. THE SOLENOIDS ARE LOCATED CLOSE TO THE RT MUFFLER WHICH SEEMS TO CAUSE EXCESSIVE HEAT ON THEM.									
3246	9620Q 18503780	CESSNA A185F				WHEEL D301185	FAILURE MLG	1432	4/4/98 98ZZZX1559
*****	DURING LANDING, THE ALUMINUM WHEEL BROKE CAUSING A COMPLETE FAILURE OF THE WHEEL AND BRAKE ASSEMBLY. REASON FOR FAILURE IS UNKNOWN. SUBMITTER RECOMMENDED A THOROUGH VISUAL INSPECTION OF THE WHEEL HALVES AND CHECK FOR PROPER TORQUE ON THE WHEEL BOLTS DURING AN ANNUAL INSPECTION.								
2750	62AK 20700780	CESSNA 207A				WIRE CC4	SHORTED RT WING FLAP	13332	2/18/98 98ZZZX981
FLAP UP WIRE CHAFED ON STRINGER IN WING BETWEEN STA 85.62 AND STA 100.00; WIRE SHORTED AND BURNED HOLE IN WING. INSPECTION OF 10-AMP CIRCUIT BREAKER FOUND A FAILURE OF BREAKER TO 'POP'. SUBMITTER RECOMMENDED RUNNING WIRES IN A PLASTIC CONDUIT FROM LEADING EDGE WIRE GROMMETS TO FLAP MOTOR PLUG.									
5500	3772Y 21058272	CESSNA 210D				MOORING RING 0422344	FAILED TAIL		2/21/98 98ZZZX993
*****	THE TAIL TIE-DOWN RING BROKE WHEN THE OWNER ATTEMPTED A MINOR RE-ALIGNMENT. REMOVAL OF THE FAILED PARTS REVEALED AN UNAPPROVED PART HAD BEEN INSTALLED BY SOMEONE IN THE PAST. THIS RING BOLT CAN BE FOUND IN MOST ANY HARDWARE STORE. IT HAD BEEN WIRE FORMED OF LOW QUALITY STEEL WIRE, .25 INCH IN DIAMETER. A FIELD WELD HAD BEEN USED TO CLOSE THE RING AT THE BOLT SHANK. COMMON HARDWARE .25 INCH COARSE THREAD NUTS HAD BEEN USED TO SECURE THE RING IN THE AIRPLANE.								
3230	3141L 310J0141	CESSNA 310J				IDLER GEAR 08421022	FAILED NLG RETRACT	10097	2/23/98 98ZZZX983
*****	IDLER IN NOSE GEAR RETRACT LINKAGE BROKE DURING RETRACTION DUE TO INTERFERENCE OF NOSE GEAR AND WHEELWELL DOORS. NOSE GEAR FAILED TO EXTEND DUE TO LOSS OF NITROGEN CHARGE IN STRUT. STRUT HAD BEEN OVERSERVICED WITH HYDRAULIC FLUID. WITH THE STRUT BEING OVERSERVICED WITH FLUID, THE EXTENSION APPEARED NORMAL ON THE GROUND. PROPER SERVICING OF OLEO STRUT WOULD HAVE CAUSED A COLLAPSED STRUT WHEN THE NITROGEN CHARGE WAS LOST AND A COMPLETE PRE-FLIGHT INSPECTION WOULD HAVE NOTED THIS DISCREPANCY.								
5755	4572N 340A0551	CESSNA 340A				BRACKET 20081	CRACKED RT SPOILER	950	1/19/98 98ZZZX963
AIRCRAFT HAS THE SPEED BRAKE KIT, P/N SP8000, INSTALLED IAW STC NR SA4948NM. PILOT REPORTED THE RIGHT WING SPOILER WOULD NOT FULLY RETRACT. FOUND BOTH FLANGES BROKEN OFF ON THE TOP ATTACH DOUBLER, P/N 2008-1, AT THE ACTUATOR. LOWER BRACKET, P/N 2008-3, HAD BOTH FLANGES CRACKED.									
5755	4572N 340A0551	CESSNA 340A				BRACKET 20083	CRACKED RT SPOILER	950	1/19/98 98ZZZX962
AIRCRAFT HAS THE SPEED BRAKE KIT, P/N SP8000, INSTALLED IAW STC NR SA4948NM. PILOT REPORTED THE RIGHT WING SPOILER WOULD NOT FULLY RETRACT. FOUND BOTH FLANGES BROKEN OFF ON THE TOP ATTACH DOUBLER, P/N 2008-1, AT THE ACTUATOR. LOWER BRACKET, P/N 2008-3, HAD BOTH FLANGES CRACKED.									

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## DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT (cont'd)

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5610	88584 421C0642	CESSNA 421C				WINDSHIELD 5111604202	DEPARTED COPILOT	7500	12/1/97 98ZZZX971
AS THE AIRCRAFT LEVELED OFF AT 23,000 FEET MSL, THE COPILOT'S WINDSHIELD DEPARTED THE AIRCRAFT WITH APPROXIMATELY 10 PERCENT LEFT ATTACHED TO THE AIRFRAME. SUSPECT THE FORWARD RIGHT LOWER ATTACH HOLES IS WHERE THE CRACK STARTED, THEN THE CRACK WENT STRAIGHT UP OR AFT TO THE TOP OF THE WINDSHIELD. SHOULD HAVE RECURRING INSPECTION OF ATTACH HOLES. REF: MEB 83-33 R-N1.									
3240	6775C 5500677	CESSNA 550				VALVE 8952320875	FAILED EMERGENCY BRAKE		2/3/98 98ZZZX1095
RECEIVED RECENTLY OVERHAULED VALVE FROM SUPPLY. INSTALLED VALVE, VALVE WOULD NOT PASS OPERATIONAL TEST IN AIRCRAFT. FOUND VALVE TO BE FAULTY. (INTERNALLY BYPASSING PNEUMATIC PRESSURE). PART WAS OVERHAULED 5-23-97 BY ALLIED SIGNAL AEROSPACE EQUIPMENT SYSTEMS.									
7933 CWQR	314QS 5600441	GULSTM 560				CONNECTOR P87	MISLABELED ENG OIL TEMP	208	2/10/98 98ZZZX984
CONNECTOR FOR OIL TEMPERATURE AT ENGINE MISLABELED, P.93. PER MANUFACTURER, CONNECTOR SHOULD BE LABELED P.87.									
7921	9157M 290009	MOONEY M20R				OIL COOLER 649479	CRACKED FRONT INBOARD	682	2/2/98 98ZZZX764
OIL COOLER INSPECTION FOUND A CRACK FORMED AT THE BASE OF THE FRONT INBOARD STIFFENER, IN WELD AREA. CRACK HAD PENETRATED THE WELD. SUSPECT CAUSE, BAD WELD.									
5700	6076D 224730	PIPER PA22150				STRUT 855592	RUSTED WING	2500	1/22/98 98ZZZX760
*****	WING STRUTS WERE INSPECTED IAW AD 93-10-06 AND SB 528D IN DEC '96 AND FOUND OK. DURING '97 ANNUAL, OWNER HAD ALL FOUR STRUTS INSPECTED AND MODIFIED. STC SA 4635NM WAS DONE TO STRUTS. OLD FORK BARREL WAS CUT OFF BY TECHNICIANS. FOUND 2 STRUTS RUSTED SEVERELY ON THE INSIDE OF THE STRUT WHERE THE DOOR CATCHES ARE MOUNTED. TWO NEW STRUTS USED FOR STC COMPLETION. THE OWNER, WHO IS ALSO AN IA, WOULD LIKE TO ADVISE THAT THE AD 93-10-06 DOES NOT SPECIFICALLY ADDRESS THIS AREA OF STRUTS FOR INSPECTION. THE AD DIRECTS ONE TO SB 528D.								
8011	6484P 241602	PIPER PA24250		PRAIR		STARTER PM1201	INOPERATIVE RING GEAR		2/21/98 98ZZZX982
*****	THIS NEW STARTER WOULD NOT ENGAGE THE ENG RING GEAR WITHOUT MANUAL MANIPULATION OF THE BENDIX DRIVE PINION GEAR EVEN THOUGH IT WAS BEING SUPPLIED WITH 14V BATTERY POWER THROUGH COPPER AIRCRAFT CABLES. THE STARTER DID START THE ENG, HOWEVER, UPON ENG SHUTDOWN AND RESTART, IT FAILED TO ENGAGE THE RING GEAR WITHOUT MANUAL MANIPULATION OF THE PINION GEAR. THIS PERMANENT MAGNET STARTER CREATED SUCH A LARGE MAGNETIC FIELD DURING ENGINE ROTATION THAT IT CAUSED THE AIRPLANE WET COMPASS TO SWING MORE THAN 90 DEGREES. LAMAR STARTER (PM1202) WAS REMOVED AND REPLACED WITH A FRESHLY OVERHAULED ELECTROSYSTEMS STARTER (MZ422R) WHICH STARTED THE ENGINE SEVERAL TIMES WITHOUT AFFECTING THE MAGNETIC COMPASS.								
3213	9375N 28R35084	PIPER PA28R200				HOUSING 67035	BROKEN LT MLG STRUT		3/25/98 98ZZZX1623
*****	ROUTINE LUBE OF GEAR FOUND BROKEN LT LANDING GEAR FORWARD SWIVEL SHAFT. CASTING SHOULD HAVE LARGE RADIUS AT AREA USING A BEARING SPACER WITH A MATCHING INSIDE RADIUS. CAUSE - HARD LANDINGS/STRESS CONCENTRATION.								
3213 OG5R	170ND 2837005	PIPER PA28R201				TRUNNION 6792617	CRACKED RT MLG STRUT	7773	4/13/98 98ZZZX1625
PILOT REPORTED FLUID LEAKING FROM RIGHT STRUT ON AFT SIDE OF TRUNNION. FOUND CRACKED AT LOWER END OF WEB AREA. CRACK APPROXIMATELY .75 INCH LONG RUNNING Laterally EACH WAY FROM WEB. INSTALLED NEW ASSEMBLY. PLACED WATCH ON OTHER AIRCRAFT IN FLEET.									
3222	225PA 28R7635443	PIPER PA28R200				GEAR ASSY 6710010	FAILED NLG RETRACT		1/9/98 98ZZZX964
AFTER LANDING, PILOT STATED ON ROLL-OUT THE NLG BEGAN TO SHIMMY. STOPPED THE AIRCRAFT AND STARTED TO SHUT DOWN ENGINE. THE NOSE WHEEL COLLAPSED FORWARD WITH PROPELLER STRIKING THE NLG TIRE AND RIM. INVESTIGATION REVEALED THE RETRACT LUG ON NLG ASSY HAD BROKEN.									

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## DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT (cont'd)

4/26/98 To 5/2/98 ISSUE: 98-18 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3230	3581C 318052091	PIPER PA31350				DRAG LINK 4033600	CRACKED RT UPPER LEG	8994	1/30/98 98ZZZX758
DURING LANDING GEAR CLEANING AND INSPECTION, FOUND THE RT UPPER NOSE LANDING GEAR DRAG LEG CRACKED AT BOSS WHERE THE RETRACT ACTUATOR LINKAGE ATTACHES. THIS IS THE SECOND TIME SAME PART FOUND CRACKED ON LIKE AIRCRAFT WITHIN ONE YEAR. BOTH CRACKED IN SAME PLACE!									
5521	35497 318052039	PIPER PA31350				SPAR	CRACKED LT/RT ELEVATOR	6777	1/21/98 98ZZZX976
*****	UPON C/W PIPER SB 998, BOTH ELEVATOR SPARS WERE CRACKED .50 INCH IN FROM OUTBOARD END. (BOTH SPARS REPLACED). ELEVATOR SPAR REPLACEMENT NR'S 40075-020 AND DASH 021 ARE IMPROVED DESIGNS.								
3250 CTYR	112BL 31T7720037	PIPER PA31T			4713400	BUSHING 2073743	CORRODED NLG STEERING		1/21/97 98ZZZX977
NOSE GEAR STEERING BELLCRANK BUSHINGS WERE CORRODED IN WHEELWELL AREA. SYMPTOMS WERE STIFF RUDDER PEDALS. BUSHINGS AND SHAFT, P/N 47080-000, WERE REPLACED. BUSHINGS HAVE NO GREASE ZERK, BUT SHOWED SIGNS OF PREVIOUS LUBRICATION.									
2740	3255W 3277	PIPER PA32260				CONTROL ARM 65248	WRONG PART STAB TRIM TAB		2/10/98 98ZZZX980
UNABLE TO RIG TRIM TAB TRAVEL TO SPECIFICATION. FOUND TRIM TAB CONTROL ARM WRONG. OVERALL LENGTH OF PART IS TOO SHORT. BEND OF TUBE IS IN WRONG PLACE. ANGLE OF TUBE TO PLATE IS WRONG. WITNESS HOLE FOR ROD END IS MISSING. SUBMITTER SUGGESTED DIAGRAM OF CONTROL TAB AND STABILATOR TRAVELS CAN BE DIFFICULT TO READ ON MICROFICHE READER. MAY HAVE BEEN INTERPRETED WRONG.									
7820	47684 32R7880018	PIPER PA32R300				MUFFLER 6751Q7000	CRACKED TAILPIPE WELD		2/1/98 98ZZZX955
DURING ANNUAL INPSECTION, THE CENTER MUFFLER WAS FOUND CRACKED ONE-QUARTER AROUND IN THE WELD UNDER REINFORCEMENT PLATE. IT APPEARS THE WELD DID NOT PENETRATE THE TAILPIPE COMPLETELY.									
5712	1039U 347250024	PIPER PA34200				RIB 78500003	CRACKED WING	2474	2/13/98 98ZZZX994
DISCOVERED RIB SEVERELY CRACKED FROM RT FORWARD LOWER CORNER TO TOP CENTER DIAGONALLY DURING 100-HOUR INSPECTION. SUSPECT FROM HARD LANDINGS. AIRCRAFT USED FOR FLIGHT TRAINING ALMOST EXCLUSIVELY. NEW PART OF SAME NUMBER IS MUCH STRONGER WITH MANY STRUCTURAL MODIFICATIONS. SUSPECT PIPER IS AWARE OF PROBLEM. RIB LOCATED IMMEDIATELY OUTBOARD OF MAIN GEAR ATTACH POINT.									
2750 CE8S	21113 447995040	PIPER PA44180				CABLE 62701101	FRAYED FLAP	7100	1/30/98 98ZZZX997
*****	DURING PREFLIGHT, DISCREPANCY WAS FOUND THAT WHEN THE FLAPS ARE SELECTED TO 10 DEGREES, FLAPS BARELY MOVED. FURTHER INSPECTION REVEALED FLAP CABLE WAS FRAYED ONLY TO TWO STRANDS. THE AREA IN WHICH THE CABLE FRAY IS LOCATED IN AN AREA THAT IS NOT EASILY ACCESSIBLE TO INSPECT. CABLE WAS REPLACED AND RIGGED TO MANUFACTURER'S SPECIFICATION.								
3213 CE8S	2103K 447995183	PIPER PA44180				STRUT 6703704	FAILED LT MLG	8100	1/20/98 98ZZZX996
DURING LANDING, THE LEFT MAIN GEAR OLEO STRUT ASSEMBLY SHEARED AT THE BASE OF THE STRUT TUBE WHERE IT ATTACHES TO THE LOWER CASTING, AND SEPARATED FROM THE AIRCRAFT CAUSING DAMAGE TO THE WING, FLAP, PROPELLER, STABILATOR, AND VERTICAL FIN.									
5313	328PW 09	RHNFLU EXTRA300				LONGERON PC24000A0	CRACKED HOR STAB ATTACH	711	2/2/98 98ZZZX759
DURING ROUTINE SERVICE WITH HORIZONTAL STABILIZER REMOVED, FOUND A CRACK IN THE UPPER LONGERON AT THE HORIZONTAL STABILZIER FORWARD ATTACH POINT. THIS LOCATION CANNOT BE SEEN DURING NORMAL INSPECTION PROCEDURES WITH HORIZONTAL STABILIZER INSTALLED. NO DEFECT WAS FOUND IN THE LOCATION DEPICTED IN SB 300-2-95. SUBMITTER RECOMMENDED REMOVING HORIZONTAL TO INSPECT FOR CRACKS.									

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5313	76PK	RHNFLU				LONGERON	CRACKED		2/2/98
	15	EXTRA300				PC24000A0	HOR STAB ATTACH		98ZZZX763
*****	DURING A MAINTENANCE PROCEDURE INVOLVING THE REMOVAL OF HORIZONTAL STABILIZER AND FUSELAGE FABRIC, FOUND A CRACK IN THE UPPER LONGERON AT THE HORIZONTAL STABILIZER FORWARD ATTACH POINT. THIS LOCATION CANNOT BE SEEN DURING NORMAL INSPECTION PROCEDURES. SB 300-2-95 INSPECTION OF UPPER LONGERON IN FRONT OF HORIZONTAL STABILIZER ATTACHMENT DEPICTS A LOCATION WHICH NO DEFECT WAS FOUND ON THIS PARTICULAR AIRCRAFT. SUBMITTER RECOMMENDED REMOVING HORIZONTAL STABILIZER AND INSPECT THE AREA BETWEEN THE FORWARD STABILZIER ATTACH BRACKETS. PARTICULARLY, AT THE WELDS, THIS CRACK WAS LOCATED ON THE AIRCRAFT'S RIGHT SIDE.								
7810	2507T	SOCATA				MUFFLER	FAILED	1880	2/14/98
XHYR	914	TB20TRINIDAD				TD2056010006	ENGINE	4	98ZZZX987
	MUFFLER SEAM SPLIT FOLLOWING REPAIR. TIS WAS 1 HOUR. SECOND REPAIR LASTED 3 HOURS THEN MUFFLER EXPLODED. INVESTIGATION FOUND MUFFLER WAS FOR LYC O320 INSTEAD OF IO540.								

(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT)

**DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS****4/26/98 - 5/2/98    ISSUE: 98-18    ZAC-327**

<b>ATA OPER</b>	<b>REG. NO SERIAL NO</b>	<b>ACFT MAKE ACFT MODEL</b>	<b>ENG MAKE ENG MDL</b>	<b>PROP MAKE PROP MDL</b>	<b>COMP MFG COMP MDL</b>	<b>PART NAME PART NUMBER</b>	<b>PART COND PART LOC.</b>	<b>TT TSO</b>	<b>DIFF. DATE OPER CONT NO</b>
2312 HEEA	104PH 3622	BELL 206B3			KX155	TRANSCEIVER 069102405	FAILED COCKPIT		4/16/98 HEEA0013922
RADIO POWERS OFF BY ITSELF. (NO DISPLAY) VERIFIED COMPLAINT. PERFORMED PRELIMINARY INSPECTION AND FOUND UNIT TO HAVE NO DISPLAY DUE TO BURNT SPOT ON DISPLAY BOARD.									
2435 HEEA	22743 3624	BELL 206B3				GENERATOR 23032048	FAILED START/GEN	11484	4/16/98 HEEA0013952
DROPS OFF LINE IN FLIGHT. COMES BACK ON WITH RESET FIELD SWITCH.									
2562 HEEA	5742N 45477	BELL 206L1			NARCO	ELT ELT910	FAILED COCKPIT		4/16/98 HEEA0013956
ELT WILL NOT TURN OFF.									
2622 HEEA	5007Y 45192	BELL 206L1				FIRE EXTINGUISHE MODEL344	DEFECTIVE CABIN		4/16/98 HEEA0013958
PRESSURE AND WEIGHT ARE LOW.									
2810 HEEA	3892R 45594	BELL 206L1				FUEL CELL 206064611001	LEAKING FUEL SYS		4/15/98 HEEA0013898
FUEL CELL LEAKING.									
2841 HEEA	107PH 2789	BELL 206B3				INDICATOR 206075189001	STUCK FUEL QTY		4/16/98 HEEA0013963
FUEL QTY INDICATOR NEEDLE STUCK BETWEEN 55 AND 60 GALLONS.									
3340 HEEA	16938 45157	BELL 206L1			WHELEN	POWER SUPPLY A490A	WEAK STROBE		1/6/98 HEEA0012518
POWER SUPPLY VERY WEAK.									
3421 HEEA	1072T 45385	BELL 206L1				INDICATOR 2360041902	FAILED COCKPIT		4/16/98 HEEA0013969
INDICATOR ROTOR BEARINGS FROZEN.									
3421 HEEA	1078C 45392	BELL 206L1				INDICATOR 2360041902	FAILED COCKPIT		4/16/98 HEEA0013967
ATTITUDE INDICATOR HAS BAD BEARINGS.									
3421 HEEA	2250U 45754	BELL 206L1				INDICATOR 2360041902	FAILED COCKPIT		4/16/98 HEEA0013968
ATTITUDE INDICATOR HAS BAD BEARINGS.									
3452 HEEA	2249Z 45753	BELL 206L1			KT76	TRANSCEIVER 066106200	FAILED COCKPIT		4/16/98 HEEA0013921
PULSE WIDTH OUT OF SPECS. UNABLE TO CHANGE PULSE WIDTH DUE IT BEING A SURFACE MOUNT COMPONENT.									

\*\*\*\*\* DENOTES SIGNIFICANT OCCURRENCE

## DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS (cont'd)

4/26/98 To 5/2/98 ISSUE: 98-18 ZAC-327

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6230 ZV1R		BELL 206L1				LINK ASSY 206010336005	WORN PYLON		3/18/98 98ZZZX1621
EXCESSIVE PLAY AT TWO PLACES. SEE BELL MM L-3 FIG 62.21. AT TEAR DOWN FOUND LINK ASSY BEARINGS AND SPACERS WORN BEYOND LIMITS, TOTAL TIME OF PARTS LESS THAN 1,000 HRS/1 YEAR SINCE REPLACEMENT.									
6230 HEEA	5737T 45454	BELL 206L1			206010450113	RING ASSY 206010451005	WORN M/R MAST		4/15/98 HEEA0013903
SEAL RIDE WORN BEYOND LIMITS.									
6700 HEEA	1078D 45397	BELL 206L1				SLEEVE 206001328007	CORRODED FLT CONTROL		4/16/98 HEEA0013945
CORROSION BEYOND LIMITS ON INSIDE DIAMETER OF RETAINER RING. SCRAPPED REPLACED WITH SERVICEABLE PART.									
6710 HEEA	1078D 45397	BELL 206L1				ELBOW 206001343001	CORRODED M/R		4/16/98 HEEA0013946
CORROSION BEYOND LIMITS AROUND BOLT HOLE AND AROUND SHOULDER AREA. SCRAPPED LOCALLY. REPLACED WITH SERVICEABLE PART.									
6710 HEEA	5737T 45454	BELL 206L1				ACTUATOR 206062721109	FAILED M/R CONT		1/6/98 HEEA0012517
ACTUATOR WORKS INTERMITTENTLY, WILL NOT ADJUST.									
6720 HEEA	1078D 45397	BELL 206L1				PLATE ASSY 206001188001	ROUGH MIXING LEVER		4/16/98 HEEA0013944
BEARING ROUGH, RATCHETY AND CANNOT BE REPLACED. SCRAPPED BEARING AND REPLACED WITH SERVICEABLE BEARING.									
7250 HEEA	22718 3618	BELL 206B3	ALLSN 250C20B		6898735	NOZZLE 6851531	DEFECTIVE NR 4		4/16/98 HEEA0013972
RECEIVED NR4 NOZZLE AND ATTEMPTED TO MACHINE TIP PATHS. NOTED: COATING LIFTING AND FLAKING DURING MACHINING.									
7322 LS1R	206BX 2872	BELL 206B	ALLSN 250C20B			FUEL CONTROL 23056936	DEFECTIVE ENGINE	1730	4/9/98 98ZZZX1620
FUEL CONTROL BEARING - BLUE GREASE WASHED OUT. SENT FOR REPAIR. CNTRL NR 98-4-7.									
7714 HEEA	1078G 45398	BELL 206L1				DUAL TACH 65023046	FAILED COCKPIT		4/16/98 HEEA0013961
DUAL TACHNEEDLE SPLIT.									
7930 HEEA	2775A 45297	BELL 206L1			174000103	INDICATOR 174035201	FAILED ENG OIL		4/16/98 HEEA0013924
INDICATOR WILL NOT INDICATE. INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DIDN'T WORK.									
7930 HEEA	2135V 45657	BELL 206L1			174000103	INDICATOR 174035201	FAILED ENG OIL		4/16/98 HEEA0013925
WILL NOT INDICATE. INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DIDN'T WORK.									
7930 HEEA	41128 51134	BELL 206L3			174000103	INDICATOR 174035201	FAILED ENG OIL		4/16/98 HEEA0013926
INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DIDN'T WORK.									

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## DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS (cont'd)

4/26/98 To 5/2/98 ISSUE: 98-18 ZAC-327

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7930 HEEA	3116L 51529	BELL 206L3			174000101	INDICATOR 1740352	FAILED ENG OIL		4/16/98 HEEA0013923
INDICATOR WILL NOT INDICATE. INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DIDN'T WORK.									
2312 HEEA	5736J 31140	BELL 212				TRANSCIVER 7001840903	FAILED COCKPIT		4/16/98 HEEA0013949
TRANSCIVER DISPLAY 50,250,400 AND 1200 LED'S GO OUT.									
5210 HEEA		BELL 212				TRACK ASSY 205030220010	DEFECTIVE RT UPPER DOOR		4/15/98 HEEA0013897
R/H UPPER DOOR TRACK NOT WIDE ENOUGH TO ALLOW ROLLER TO PASS WITHOUT JAMMING IN CHANNEL.									
2210 HEEA	59806 28140	BELL 214ST				AMPLIFIER 214074301105	MALFUNCTION SCAS		4/15/98 HEEA0013896
PITCH CHANNEL KICKS IN FLIGHT.									
2432 HEEA	3897N 28106	BELL 214ST				CHARGER 214175379103	FAILED BATTERY		1/6/98 HEEA0012529
BATTERY SYSTEM LIGHT REMAINS ON.									
2432 HEEA	6957Y 28139	BELL 214ST				CHARGER 214175379103	FAILED BATTERY		1/6/98 HEEA0012532
BATTERY NOT CHARGING.									
2564 HEEA	59805 28141	BELL 214ST				LIFE RAFT 214070943108	DEFECTIVE EMERG EQUIP		4/16/98 HEEA0013960
WILL NOT FIT IN THE AIRCRAFT.									
3413 HEEA		BELL 214ST				INDICATOR RC30VIL2	DEFECTIVE VERT SPEED		1/12/98 HEEA0012563
VERT SPEED INDICATOR NEEDS TO MODIFIED PER S/B 214-97-79. TIME SINCE REPAIR 0:00.									
3413 HEEA		BELL 214ST				INDICATOR RC30VIL2	DEFECTIVE VERT SPEED		1/12/98 HEEA0012564
VERT SPEED INDICATOR NEEDS TO MODIFIED PER S/B 214-97-79. TIME SINCE REPAIR 0:00.									
3413 HEEA	3897N 28106	BELL 214ST				INDICATOR 212070239003	DEFECTIVE COCKPIT		1/12/98 HEEA0012562
INDICATOR NEEDS TO MODIFIED PER S/B 214-97-79.									
3413 HEEA	3897N 28106	BELL 214ST				INDICATOR 212070239003	DEFECTIVE COCKPIT		1/12/98 HEEA0012561
INDICATOR NEEDS TO MODIFIED PER S/B 214-97-79.									
3413 HEEA	6957Y 28139	BELL 214ST				INDICATOR 212070239003	DEFECTIVE COCKPIT		1/12/98 HEEA0012560
INDICATOR NEEDS TO MODIFIED PER S/B 214-97-79.									

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## DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS (cont'd)

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3413 HEEA	6957Y 28139	BELL 214ST				INDICATOR 212070239003	DEFECTIVE COCKPIT		1/12/98 HEEA0012559
INDICATOR NEEDS TO MODIFIED PER S/B 214-97-79.									
3413 HEEA	59805 28141	BELL 214ST				INDICATOR RC30VIL2	DEFECTIVE COCKPIT		1/12/98 HEEA0012566
INDICATOR NEEDS TO MODIFIED PER S/B 214-97-79.									
3413 HEEA	59805 28141	BELL 214ST				INDICATOR RC30VIL2	DEFECTIVE VERT SPEED		1/12/98 HEEA0012565
INDICATOR NEEDS TO MODIFIED PER S/B 214-97-79.									
3424 HEEA	6957Y 28139	BELL 214ST				RATE GYRO 214075244001	FAILED COCKPIT		1/6/98 HEEA0012530
RATE GYRO SHOWS FULL LEFT TURN ALL THE TIME.									
6320 HEEA	5748M 28102	BELL 214ST				TRANSMITTER 222375077111	FAILED M/R GR BOX		1/6/98 HEEA0012537
INDICATES HIGH AND ALSO SHOWS 10-20 PSI STATIC.									
6220 HEEA	230UN 23009	BELL 230				SPRING 222310117105	DETERIORATED M/R FLAP		1/9/98 HEEA0012555
M/R FLAPPING ELASTOMER CRACKING AND DETERIORATED. SERIAL NUMBERS REMOVED LK0092 AND LK0067.									
6400 HEEA	230UN 23009	BELL 230				IDLER 222012130001	WORN T/R		1/9/98 HEEA0012552
IDLER BEARING HAS PLAY.									
3212 HEEA	57416 53070	BELL 407				FLOAT COVER 206050247131	WORN FLOAT		1/9/98 HEEA0012557
FLOAT COVER ASSY END CAPS WORN.									
3212 HEEA	57416 53070	BELL 407				FLOAT COVER 206050247137	WORN FLOAT		1/9/98 HEEA0012558
FLOAT ASSY END CAPS WORN.									
3416 HEEA	1167G 53067	BELL 407				INDICATOR 214175278101	FAILED COCKPIT		4/15/98 HEEA0013914
ENCODER TRANSPONDER READS 200 FEET OFF.									
6310 HEEA	407PH 53003	BELL 407			406040500123	CARBON SEAL 406340102101	LEAKING FREEWHEEL	2490	4/15/98 HEEA0013902
FREEWHEEL CARBON SEAL LEAKING. (2500 HOUR OVERHAUL DUE)									
6322 HEEA	467PH 53142	BELL 407				FAN SHAFT 407040303101	DEFECTIVE BEARINGS	343	4/6/98 HEEA0013858
FAN SHAFT HAS ROUGH BEARINGS.									

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6510 HEEA	407PH 53003	BELL 407				DISK COUPLING 406040340101	CORRODED T/R DRIVE		1/9/98 HEEA0012549
DISK COUPLING HAS CORROSION AND PITS CAUSING DISCS TO SPREAD (GAPS BETWEEN DISC STACK)									
6510 HEEA	407PH 53003	BELL 407				DISK COUPLING 406040340101	CRACKED T/R DRIVE		4/15/98 HEEA0013910
DISC CRACKED ON INSIDE HOLE.									
6510 HEEA	407PH 53003	BELL 407				DISK COUPLING 406040340101	CRACKED T/R DRIVE		1/13/98 HEEA0012572
CRACKED DISC ON OUTER DISC. LAST DISC PACK NEAR T/R GEARBOX.									
6510 HEEA	407PH 53003	BELL 407				DISK COUPLING 406040340101	CRACKED T/R DRIVE		1/13/98 HEEA0012571
CRACKED DISC ON OUTER DISC, 2ND FROM LAST PACK.									
6510 HEEA	407PH 53003	BELL 407				DISK COUPLING 406040340101	CRACKED T/R DRIVE	326	1/13/98 HEEA0012570
NR 7 (2ND FROM REAR) THOMAS COUPLING CRACKED.									
6510 HEEA	417PH 53038	BELL 407				DISK COUPLING 406040340101	CRACKED T/R DRIVE		1/9/98 HEEA0012550
DISC COUPLING HAS CRACKED DISC ON THE FRONT AND REAR BETWEEN BOLT HOLES									
6510 HEEA	417PH 53038	BELL 407				DISK COUPLING 406040340101	CRACKED T/R DRIVE		1/9/98 HEEA0012545
FOUND DISC PACK CRACKED ON DAILY INSPECTION.									
6510 HEEA	57416 53070	BELL 407				DISK COUPLING 406040340101	CRACKED T/R DRIVE		1/13/98 HEEA0012568
FOUND DISC PACK CRACKED ON DAILY INSPECTION.									
6510 HEEA	57416 53070	BELL 407				DISK COUPLING 406040340101	CRACKED T/R DRIVE		1/13/98 HEEA0012569
ON DAILY INSPECTION FOUND NR1 DISC PACK CRACKED.									
6510 HEEA	437PH 53072	BELL 407				DISK COUPLING 406040340101	CRACKED T/R DRIVE		1/9/98 HEEA0012551
NR 1 TAIL ROTOR DRIVESHAFT COUPLING DISC CRACKED.									
6510 HEEA	437PH 53072	BELL 407				DISK COUPLING 406040340101	CRACKED T/R DRIVE	65	1/13/98 HEEA0012567
NR 1 T/R DRIVE SHAFT COUPLING DISC CRACKED.									
6510 HEEA	467PH 53142	BELL 407				DISK COUPLING 406040340101	CORRODED T/R DRIVE		1/9/98 HEEA0012547
DISC COUPLING CORROSION BEYOND LIMITS.									

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## DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS (cont'd)

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6510 HEEA	467PH 53142	BELL 407				DISK COUPLING 406040340101	CRACKED T/R		4/15/98 HEEA0013912
	DISK COUPLING CRACKED.								
6510 HEEA	467PH 53142	BELL 407				DISK COUPLING 406040340101	CRACKED T/R DRIVE		1/9/98 HEEA0012546
	DISC COUPLING CRACKED.								
6510 HEEA	467PH 53142	BELL 407				DISK COUPLING 406040340101	CRACKED T/R		4/15/98 HEEA0013911
	DISC COUPLING CRACKED.								
6510 HEEA	402PH 53159	BELL 407				DISK COUPLING 406040340101	DEFECTIVE T/R DRIVE		1/9/98 HEEA0012548
	DISC COUPLING HAS GAP BETWEEN DISCS BEYOND LIMITS.								
2200 HEEA	2258F 33073	BELL 412				TARSYN 333 2593996333	FAILED AUTO FLIGHT		1/6/98 HEEA0012525
	FAILED TEST 3.1 ON SST BENCH.								
2210 HEEA	107X 33113	BELL 412				TARSYN 2593996333	NOISY COCKPIT		4/16/98 HEEA0013959
	TARSYN NOISY BEARING.								
2210 HEEA	2149S 36002	BELL 412				COMPUTER 7000298901	FAILED AFCS		4/2/98 HEEA0013706
	FAILED PART 9.3 AND 9.4 ON SST PITCH.								
2210 HEEA	33008 36004	BELL 412				AUTOPILOT CONTRO 7000299901	DEFECTIVE COCKPIT		1/6/98 HEEA0012541
	AUTOPILOT CONTROL HP1 AND HP2 LIGHTS ARE TOO DIM WHEN INSTRUMENT LIGHTS ARE DIMMED.								
2211 HEEA	5759N 33002	BELL 412				COMPUTER 4025008918	FAILED AFCS		1/6/98 HEEA0012542
	AFCS COMPUTER FAILED TEST 8.3 ON SST BENCH TWICE.								
2562 HEEA	107X 33113	BELL 412			NARCO	ELT ELT910	FAILED COCKPIT		4/16/98 HEEA0013955
	ELT INOPERATIVE.								
2822 HEEA	141PH 33197	BELL 412				PUMP 164A1681	FAILED FUEL BOOST		1/6/98 HEEA0012531
	NR 2 FUEL TRANSFER LIGHT ON WOULD NOT GO OUT.								
2822 HEEA	141PH 33197	BELL 412				PUMP 205060606003	FAILED FUEL BOOST		1/6/98 HEEA0012536
	BOOST PUMP LIGHT COMES ON IN FLIGHT.								

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## DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS (cont'd)

4/26/98 To 5/2/98 ISSUE: 98-18 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3120 HEEA	22608 33075	BELL 412				DIGITAL CLOCK M811B	FAILED COCKPIT		4/16/98 HEEA0013951
	CLOCK GOES OFF AND ON.								
3340 HEEA	2298Z 33077	BELL 412				LANDING LIGHT 212075139001	FAILED MOTOR CONTACTS		4/16/98 HEEA0013975
	LANDING LIGHT WOULD NOT TURN OFF WHEN LIGHT IS HOT. REPLACED GEAR, CLEANED MOTOR CONTACTS. UNIT MEETS MFG SPECS.								
3420 HEEA	3893N 33010	BELL 412				GYRO 4020936903	FAILED 3 AXIS IND		1/6/98 HEEA0012526
	GYRO BLEW CIRCUIT BREAKER ON SST.								
3420 HEEA	3893P 33012	BELL 412				GYRO 4020936903	FAILED 3 AXIS INDICATOR		1/6/98 HEEA0012539
	3 AXIS GYRO INDICATOR CAUSES KICKS IN PITCH AND ROLL IN AIRCRAFT.								
3424 HEEA	3911L 33023	BELL 412				RATE GYRO 214075244001	FAILED COCKPIT		4/16/98 HEEA0013950
	RATE GYRO TURN NEEDLE STICKS.								
3457 HEEA	2148K 36001	BELL 412			GPS165	GPS 0110010600	DEFECTIVE COCKPIT		4/16/98 HEEA0013927
	SEVERAL LED INOPERATIVE, LOWER DISPLAY. PERFORMED PRELIMINARY INSPECTION. FOUND UNIT DISPLAYING STRANGE CHARACTERS, AND WILL NOT LOCK ON.								
6210 HEEA	2014K 33020	BELL 412				BLADE 412015300109	DEFECTIVE M/R	7147	1/13/98 HEEA0012576
	UNABLE TO TRACK AND BALANCE BLADE.								
6210 HEEA	3893S 33022	BELL 412				BLADE 412015300109	CRACKED M/R	8411	1/13/98 HEEA0012577
	BLADE HAS SKIN CRACK NEAR THE INBOARD TRIM TAB ON THE LOWER SURFACE WHERE A REPAIR WAS DONE PREVIOUSLY AT COMPOSITE TECHNICS WITH A TOTAL TIME OF 7978:15.								
6220 HEEA	2261D 33076	BELL 412				BEARING 412010182101	WORN M/R	248	4/15/98 HEEA0013899
	BEARING INNER RACE SHOULDER WORN ON ONE SIDE DUE TO LOST TORQUE OF NUT P/N MS14145L5 WHICH WAS CAUSED BY THE LACK OF THREADS ON THIS NUT OR WASHER P/N AN960-516 NOT CONTACTING THE PITCH HORN FULLY. AS NOTED IN ASB 412-98-92.								
6320 HEEA		BELL 412				SEAL 412040111103	DEFECTIVE M/R GR BOX		1/14/98 HEEA0012581
	MAGNETIC RING HAS NO MAGNETISM.								
6320 HEEA	2148K 36001	BELL 412				RING GEAR 205040231009	CORRODED M/R GR BOX		1/6/98 HEEA0012524
	FRETTING CORROSION ON FLANGE SURFACE AND PILOT DIAMETERS (UPPER AND LOWER)								
6710 HEEA	6559Z 36019	BELL 412				ACTUATOR 204060762103	FAILED M/R CONTROL		1/6/98 HEEA0012535
	ACTUATOR WILL NOT HOLD BEEP RANGE ADJUSTMENT.								

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7320 HEEA		BELL 412				FUEL CONTROL 324473513	FAILED ENGINE		4/16/98 HEEA0013973
AFCU BROKEN. FOUND PX-PY ADAPTER BROKEN. REPLACED WITH SERVICEABLE PART.									
7712 HEEA	3911L 33023	BELL 412				INDICATOR 412075008111	FAILED NR 1 ENG TORQ		4/16/98 HEEA0013962
NR1 ENGINE SIDE POPS CIRCUIT BREAKER.									
7714 HEEA	5759N 33002	BELL 412				INDICATOR 412075010111	FAILED TRIPLE TACH		4/16/98 HEEA0013940
TRIPLE TACH READS HIGH AND NEEDLES 1 AND 2 HAVE EXCESSIVE FRICTION ERROR.									
7714 HEEA	3893P 33012	BELL 412				INDICATOR 412075010111	DEFECTIVE TRIPLE TACH		1/6/98 HEEA0012540
TRIPLE TACH INDICATOR HAS LOOSE PARTS INSIDE.									
7714 HEEA	2149S 36002	BELL 412				INDICATOR 412075010109	FAILED TRIPLE TACH		4/16/98 HEEA0013928
TRIPLE TACH NR2 NEEDLE AND ROTOR NEEDLE ARE INOPERATIVE.									
7722 HEEA	1202T 33112	BELL 412				INDICATOR 212075067105	FAILED COCKPIT		1/6/98 HEEA0012538
ITT INDICATOR READS LOW THROUGHOUT SCALE.									
7810 HEEA	108X 33115	BELL 412				EJECTOR 212061201011	CRACKED LT EXH		1/6/98 HEEA0012528
LT EJECTOR ASSY HAS CRACK AROUND SUPPORTS.									
6310 CHIR	194CH	BOEING 1072			107D2003515	CLUTCH 107DS2131	MALFUNCTIONED NR 1 IDLER	20	1/19/98 CHI2010
NR 1 CLUTCH HAD OVERRUN DURING TOPPING CHECK AND WOULD NOT RE-ENGAGE. NO PROBLEM FOUND WITH CLUTCHES, HUB OR PINION. (X)									
6310 CHIR	CGHFI 2002	BOEING 1072			107D2003515	CLUTCH 107DS2131	SLIPPED NR 1 IDLER	109	1/19/98 CHI2009
NR 1 CLUTCH SLIPPED IN-FLIGHT. NO APPARENT DEFECTS FOUND ON INSPECTION. DIMENSIONAL INSPECTION OF PINION AND HUB SHOW THEM TO BE WELL WITHIN LIMITS. CLUTCH NEEDS TO BE INSPECTED BY HIGHER INSPECTION AUTHORITY. (X)									
6310 CHIR	CGHFI 5	BOEING 1072			107D2003515	CLUTCH 107DS2131	SLIPPING NR 2	310	1/29/97 CHI2007
NR 2 CLUTCH SLIPPING. (X)									
6220 CHIR	P2CHI MJ003	BOEING 234			414R200219	BEARING 114RS2133	SPALLED AFT ROTOR	8902	12/20/97 CHI2012
AFTER SHUTDOWN, NOTICED EXCESSIVE OIL LEAKING FROM AFT HEAD. CLOSER INSPECTION AND SUBSEQUENT REMOVAL OF RED HORIZONTAL HINGE PIN BEARING END CAP REVEALED METAL SHAVINGS COMING FROM RED LEADING HORIZONTAL BEARING. AFTER FURTHER DISASSEMBLY, FOUND A CRACKED HORIZONTAL HINGE PIN SLEEVE. CAUSE UNKNOWN. (X)									

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2312 HEEA	81832 S828	BOLKMS BO105S			KY196	TRANSCIEVER 064101902	FAILED COCKPIT		4/16/98 HEEA0013930
HEAVY STATIC AND NO SIDETONE. PERFORMED PRELIMINARY INSPECTION. ADJUSTED C/N SQUELCH AND SIDETONE. REPAIRED. ALSO ADJUSTED CARRIER SQUELCH. FOUND TRANSMIT POWER OUT LOW. REPLACED C623 AND C624 CAPACITORS. NO HELP. REPLACED T604 TRANSFORMER. REPAIRED BUT FOUND MODULATIONDISTORTED AT 85% MODULATION. REPLACED Q120, Q121, Q122, Q125 AND Q126 TRANSISTORS. MODULATION STILL DISTORTED.									
2562 HEEA	54191 S804	BOLKMS BO105S			NARCO	ELT ELT910	FAILED COCKPIT		4/16/98 HEEA0013974
ELT COMES ON INTERMITTENTLY.									
2562 HEEA	6607K S841	BOLKMS BO105S			NARCO	ELT ELT910	FAILED COCKPIT		4/16/98 HEEA0013954
ELT WOULD NOT GO OFF POSITION.									
3340 HEEA	86CH S557	BOLKMS BO105S				POWER SUPPLY A413AHDADF1428	FAILED STROBE		4/2/98 HEEA0013824
STROBE LIGHT INOPERATIVE.									
3457 HEEA	137AE S851	BOLKMS BO105S			GPS 150	GPS 0110005400	FAILED COCKPIT		4/16/98 HEEA0013943
2 YEAR INSPECTION DUE. PERFORMED PRELIMINARY INSPECTION. FOUND BACKUP BATTERY TO BE DEAD AND ALSO FOUND PLASTIC ON SIDE OF UNIT TO BE CRACKED.									
6240 HEEA	86CH S557	BOLKMS BO105S				RPM WARNING BOX KDW021	FAILED ROTOR		4/2/98 HEEA0013823
ROTOR LIGHTS INOPERATIVE.									
6240 HEEA	86CH S557	BOLKMS BO105S				RPM WARNING BOX KDW02	MALFUNCTION M/R		4/2/98 HEEA0013820
AUDIO HORN BEEPS LOW.									
6240 HEEA	86CH S557	BOLKMS BO105S				INDICATOR DL40438	FAILED ROTOR		4/2/98 HEEA0013731
ROTOR NEEDLE READS ABOUT 3% HIGHER THAN N2 NEEDLES.									
6710 HEEA	5029H S670	BOLKMS BO105S				BELLCRANK 10541121	CORRODED FLT CONT		4/16/98 HEEA0013947
CORROSION AND PITTING IN BEARING MOUNTING BORE. SCRAPPED AND REPLACED WITH SERVICEABLE PART.									
7250 HEEA	131AE S787	BOLKMS BO105S	ALLSN 250C20B			NOZZLE 23038218	CRACKED NR 1		1/13/98 HEEA0012578
ENGINE REMOVED DUE TO OIL STARVATION. UPON INSPECTION OF TURBINE PARTS NOTED: CRACKED BEYOND SERVICEABLE LIMITS ON NR1 NOZZLE INNER BAND THROUGH DIAPHRAGM BRONZE FILLET AS MARKED.									
7923 HEEA	8197X S808	BOLKMS BO105S				VALVE 209072433101	STICKS OIL SYS		4/16/98 HEEA0013971
VALVE STICKS INTERMITTENTLY.									
7930 HEEA	967MB S737	BOLKMS BO105S			174000101	INDICATOR 1740352	FAILED ENG OIL		4/16/98 HEEA0013932
INDICATOR WILL NOT INDICATE. INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DIDN'T WORK.									

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7930 HEEA	3071K S859	BOLKMS BO105S			174000103	INDICATOR 174035201	FAILED ENG OIL		4/16/98 HEEA0013933
INDICATOR WILL NOT INDICATE. INDICATOR WAS REMOVED FROM BOWL AND CLEANED. INSTALLED INDICATOR BACK ON BOWL, TESTED AND INDICATOR STILL DIDN'T WORK.									
2340 HEEA	911RZ 7092	BOLKMS BK117A4				SWITCH ACS1278	MALFUNCTION COCKPIT		4/2/98 HEEA0013680
ICS/PVT SWITCH VIBRATES TO THE OFF POSITION IN FLIGHT.									
2422 HEEA	911TL 7198	BOLKMS BK117B1				STATIC INVERTER SS120	FAILED AC SYS	109	4/2/98 HEEA0013744
STATIC INVERTER INOPERATIVE.									
2435 HEEA	136AE 7234	BOLKMS BK117B2			23032048	STATOR 230321825	DEFECTIVE START/GEN		4/16/98 HEEA0013934
STATOR DEFECTIVE CAUSING VERY HIGH FIELD CURRENT AND BRUSH LEADS ARE TOO LONG.									
3340 HEEA	217UC 7152	BOLKMS BK117B1				POWER SUPPLY 1179203903	FAILED STROBE		4/2/98 HEEA0013828
POWER SUPPLY INOPERATIVE.									
3414 HEEA	401PH 7050	BOLKMS BK117A3				INDICATOR 58023060	INTERMITTENT AIRSPEED		4/2/98 HEEA0013829
AIRSPEED INDICATOR LIGHTS INTERMITTENT.									
3440 HEEA	132AE 7238	BOLKMS BK117B2			KP1553A	DISPLAY 066304550	FAILED COCKPIT		4/16/98 HEEA0013953
DIGITAL DISPLAY IS INOPERATIVE.									
3454 HEEA	911RZ 7092	BOLKMS BK117A4			KPI552	INDICATOR 066302440	FAILED COCKPIT		4/16/98 HEEA0013970
COMPASS CARD PRECESSES AND SLOW LOCALIZER.									
3457 HEEA	911NC 7026	BOLKMS BK117A3			SKYNAV 5000	GPS 0845000000	FAILED COCKPIT		4/16/98 HEEA0013931
GPS NOT PICKING UP SATELLITES.									
3457 HEEA	911TL 7198	BOLKMS BK117B1			SKYNAV 5000	GPS 0845000000	FAILED COCKPIT		4/3/98 HEEA0013838
GPS INOPERATIVE. FOUND UNIT NOT PICKING UP ANY SIGNALS; ALSO ENT BUTTON IS VERY INTERMITTENT.									
3425 HEEA	102LU S1548	HUGHES 269C			KI525A	INDICATOR 066304604	STICKS COCKPIT		1/6/98 HEEA0012527
HSI CARD INTERMITTENTLY STICKS IN SLAVE MODE.									
7323 LS1R	1097J 90081D	HUGHES 369D	ALLSN 250C20B			GOVERNOR 23057870	MALFUNCTIONED POWER TURBINE		4/9/98 98ZZZX1619
PT GOVERNOR WAS SURGING BELOW LIMITS. PT GOVERNOR REPLACED, OPS CHECK OK. AIRCRAFT RETURNED TO SERVICE. CNTRL NR 98-4-5.									

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7532 LS1R	1097J 900801D	HUGHES 369D	ALLSN 250C20B			BLEED VALVE 2305317	FAILED ENGINE		4/9/98 98ZZZX1618
ENGINE WOULD NOT MAKE POWER. PERFORMANCE RUN FOUND ENGINE RUNNING WITH EXCESSIVELY HIGH TOT. BLEED VALVE REPLACED, PERFORMANCE CHECK OK, ACFT RETURNED TO SERVICE. CNTRL NR 98-4-6.									
6320 CHIR	184CH 4001	KAWSKI KV1072			A02D301112	SEAL RING A02D31731	UNBONDED		2/6/98 CHI2043
SEAL RING UNBONDED FROM SHAFT. THIS WAS DISCOVERED DURING A TRANSMISSION CHANGE. SUSPECT POOR QUALITY ADHESIVE USED DURING MANUFACTURE. THIS HAS BEEN A PROBLEM IN THE PAST. SUBMITTER HAS REPAIRED THIS BEFORE WITH 1442 B 1/2 IN THE FIELD AND AT OVERHAUL. SUGGEST BETTER ADHESIVE USED AT MANUFACTURE, AND THE SEAL RING MOVED .110 INCH TO .250 INCH LOWER TO BETTER ENGAGE THE SEAL.									
2210 HEEA	4253S 760035	SKRSKY S76A				AMPLIFIER 7611113	FAILED YAW SLICE		1/6/98 HEEA0012520
YAW SLICE AMP CAUSING ACTUATOR TO DEFLECT FULL RIGHT.									
2312 HEEA	22342 760096	SKRSKY S76A				TRANSCIEVER 066106600	FAILED COCKPIT		4/16/98 HEEA0013936
TRANSCIEVER WILL NOT COME UP ON LINE. (DOES NOT TRANSMIT OR RECEIVE) PERFORMED PRELIMINARY INSPECTION. TROUBLESHOT AND FOUND VCO BUFFER, RVTTTS, AND IF/AGC BOARDS BAD.									
2312 HEEA	911MJ 760231	SKRSKY S76A			RT 40	TRANSCIEVER 40001278500	FAILED COCKPIT		4/16/98 HEEA0013937
NO TRANSMIT OR RECEIVE (400 MHZ RT INOPERATIVE ON FM RADIO) FOUND K1 RELAY CORRODED. SYNTHESIZER BOARD CAUSES NON-LINEAR POWER.									
2312 HEEA	707AE 760276	SKRSKY S76A			C10	CONTROL UNIT 4000106010	FAILED COCKPIT		4/16/98 HEEA0013948
LED DISPLAY WON'T DIM. PERFORMED PRELIMINARY INSPECTION. REPLACED PHOTOCCELL RT1. REPAIRED PROBLEM. ALSO FOUND THUMBWHEEL INTERMITTENT. CLEANED THUMBWHEEL AND RESOLDERED CONTACTS ON THUMBWHEEL. NO HELP. REPLACED THUMBWHEEL S1. REPAIRED PROBLEM. TOUCHED UP FACEPLATE.BENCH CHECK GOOD.									
2421 HEEA	1545X 760050	SKRSKY S76A				GENERATOR 7655009005105	WORN AC SYS		4/16/98 HEEA0013941
A/C GEN WORN AND DRY DRIVESHAFT AND ROTOR SPLINES.									
2430 HEEA	707AE 760276	SKRSKY S76A				EMERGENCY POWER 6013211	FAILED DC SYS		1/6/98 HEEA0012533
EMERGENCY POWER FAILED. LIGHTS DO NOT COME ON. DEFECTIVE CELLS.									
2436 HEEA	1546G 760076	SKRSKY S76A				GENERATOR CONTRO 7655009005104	FAILED DC SYS		4/16/98 HEEA0013939
CAUSING A/C GENERATOR TO KICK OFF LINE.									
3150 HEEA	31217 760229	SKRSKY S76A				CAUTION PANEL 7655001001103	FAILED COCKPIT		1/6/98 HEEA0012519
CAUTION PANEL NO OUTPUT ON PIN "S" ON TEST (LANDING GEAR PANEL LIGHTS WILL NOT PUSH TO TEST)									
3340 HEEA	1546K 760082	SKRSKY S76A				POWER SUPPLY A413AHDACF1428	FAILED STROBE		1/6/98 HEEA0012534
POWER SUPPLY INOPERATIVE.									

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3416 HEEA	5128 760181	SKRSKY S76A				ENCODER 066306401	FAILED COCKPIT		4/16/98 HEEA0013965
ENCODER INDICATES OUT OF TOLERANCE.									
3421 HEEA	1547D 760077	SKRSKY S76A				VERTICAL GYRO 7660002113103	FAILED COCKPIT		1/6/98 HEEA0012523
VG CAUSES 10 ROLL TO RIGHT.									
3421 HEEA	22342 760096	SKRSKY S76A				VERTICAL GYRO 7660002113103	FAILED COCKPIT		1/6/98 HEEA0012522
COPILOT ATTITUDE INDICATOR PRECESSES.									
3421 HEEA	22342 760096	SKRSKY S76A				VERTICAL GYRO 7660002113103	FAILED COCKPIT		4/16/98 HEEA0013964
NR1 ROLL KICKS. VERT GYRO FAULTY									
3421 HEEA	22342 760096	SKRSKY S76A				VERTICAL GYRO 7660002113103	FAILED COCKPIT		4/16/98 HEEA0013957
NR2 REEL PITCH CHATTERS.									
3434 HEEA	1546G 760076	SKRSKY S76A			KMR 675	RECEIVER 066104400	FAILED COCKPIT		4/16/98 HEEA0013935
OUTER MARKER INOPERATIVE. PERFORMED PRELIMINARY INSPECTION. FOUND WHITE INNER MARKER LIGHT TO BE INOPERATIVE. REPLACED TRANSISTOR Q106. NO HELP. FOUND AGC NOT WORKING. REPLACED INTEGRATED CIRCUIT I105, CAPACITOR C120, RESISTORS R125, R122, AND R128 AND TRANSISTOR Q103.NO HELP.									
6410 HEEA	31217 760229	SKRSKY S76A				BLADE 7610105101041	SPLIT T/R	12525	4/16/98 HEEA0013938
T/R BLADE TRAILING EDGE ON PADDLE "A" SPLIT OPEN.									
7250 HEEA	5128 760181	SKRSKY S76A	ALLSN 250C30S		23035128	NOZZLE 23055438	CRACKED NR 2	615	1/13/98 HEEA0012579
ENGINE REMOVED DUE TO TURBINE CYCLES. UPON INSPECTION OF TURBINE PARTS NOTED: CRACKED BEYOND SERVICEABLE LIMITS ON NR 2 NOZZLE VANES AND KEY WELDS.									
7314 HEEA	792CH 760193	SKRSKY S76A				FUEL PUMP 3944001	WORN ENGINE		4/16/98 HEEA0013942
FUEL PUMP WORN DRIVE SHAFT SPLINES AND GEAR SPLINES.									
7712 HEEA	1546K 760082	SKRSKY S76A				INDICATOR 7645001078106	FAILED DUAL TORQUE		1/6/98 HEEA0012521
DUAL TORQUE INDICATOR WILL NOT ADJUST DOWN.									
2312 HEEA	40466 3004	SNIAS AS350B2				TRANSCIEVER 064105430	FAILED COCKPIT		4/15/98 HEEA0013920
DISPLAY GOES OUT IN FLIGHT. "USE" DISPLAY IS INCORRECT. VERIFIED. "USE" DISPLAY INCORRECT. REPLACED I901 I.C. CHIP - NO HELP. REPLACED I505 AND I506 I.C. CHIPS - REPAIRED. TESTED UNIT. ADJUSTED SIDETONE. BENCH CHECK GOOD.									
2930 HEEA	60951 2771	SNIAS AS350B2				ELEMENT 806966	DIRTY HYD SYS		1/13/98 HEEA0012573
HYD FILTER ELEMENT NEEDS TO BE CLEANED.									

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3340 HEEA	60951 2771	SNIAS AS350B2				LIGHT 356H2801	FAILED STROBE		1/9/98 HEEA0012556
	ANTI COLL LIGHT INOPERATIVE.								
3340 HEEA	60951 2771	SNIAS AS350B2				LIGHT 356H2801	FAILED STROBE	677	4/13/98 HEEA0013886
	STROBE WILL NOT FLASH.								
3340 HEEA	60951 2771	SNIAS AS350B2				POWER SUPPLY 356H2802	FAILED STROBE	149	4/13/98 HEEA0013887
	STROB WILL NOT FLASH.								
3340 HEEA	6097Z 2820	SNIAS AS350B2				BULB 356H28	FAILED STROBE	79	4/13/98 HEEA0013885
	ONLY FLASHES ABOUT ONE MINUTE, THEN QUIT.								
3340 HEEA	6097Z 2820	SNIAS AS350B2				BULB 356H28	FAILED STROBE LIGHT	72	4/13/98 HEEA0013884
	BULB BURNT OUT.								
3421 HEEA	4000L 2873	SNIAS AS350B2				INDICATOR 5040017901	DEFECTIVE COCKPIT	321	4/16/98 HEEA0013929
	ATTITUDE INDICATOR HAS LOOSE SCREW INSIDE OF UNIT.								
5412 HEEA	6097Z 2820	SNIAS AS350B2				FIREWALL 350A58011113	DETERIORATED ENGINE	3859	4/13/98 HEEA0013890
	FIREWALL COMING APART.								
6220 HEEA	60951 2771	SNIAS AS350B2				STARFLEX 117775P	WORN M/R		1/13/98 HEEA0012575
	STARFLEX BALL JOINT WORN TEFLON AND SEAL UNBONDED.								
6220 HEEA	4000L 2873	SNIAS AS350B2				BALL JOINT 117775P	WORN STARFLEX		4/15/98 HEEA0013919
	STARFLEX BALL JOINT EFLON WORN.								
6230 HEEA	4000L 2873	SNIAS AS350B2				MOUNT 350A58101921	DEFECTIVE M/R	1551	4/13/98 HEEA0013893
	REMOVED AS SCISSOR ASSEMBLY.								
6230 HEEA	4000L 2873	SNIAS AS350B2				LINK SCISSORS 350A37112701	DEFECTIVE M/R	1551	4/13/98 HEEA0013892
	REMOVED AS SCISSOR ASSEMBLY.								
6330 HEEA	4000L 2873	SNIAS AS350B2				MEMBER 579065H	WORN TRANSMISSION	1579	4/13/98 HEEA0013891
	RUBBER WORN. REPLACEMENT TAKEN FROM CONSIGNMENT KIT. S								

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6420 HEEA	40466 3004	SNIAS AS350B2				ROD 350A33214501	WORN PITCH CONT	92	1/13/98 HEEA0012574
PITCH CONTROL ROD BEARING HAS WEAR.									
6720 HEEA	60951 2771	SNIAS AS350B2				ROD 350A33214501	WORN PITCH CONTROL	171	4/15/98 HEEA0013917
PITCH CONTROL ROD BEARINGS WORN.									
6720 HEEA	6097Z 2820	SNIAS AS350B2				ROD 350A33214501	WORN PITCH CONTROL	101	4/15/98 HEEA0013918
PITCH CONTROL WEAR INSIDE ID OF RUBBER BUSHING.									
6720 HEEA	6097Z 2820	SNIAS AS350B2				ROD 350A33214501	WORN PITCH CONTROL	169	4/15/98 HEEA0013915
PITCH CONTROL ROD BEARING WORN.									
6720 HEEA	6100R 2862	SNIAS AS350B2				ROD 350A33214501	WORN T/R	281	4/15/98 HEEA0013916
PITCH CONTROL ROD AXIAL WEAR, SPHERICAL BEARINGS.									
6730 HEEA	4000L 2873	SNIAS AS350B2				SERVO AC67246	LEAKING M/R	1551	4/13/98 HEEA0013895
FRONT SERVO CONTROL LEAKING.									
7160 HEEA	4000L 2873	SNIAS AS350B2				INTAKE 350A54108004	CRACKED ENG AIR	1551	4/13/98 HEEA0013894
ENG AIR INTAKE CRACKED.									
7714 HEEA	350BZ 2653	SNIAS AS350B2				INDICATOR 56337078012	FAILED ENGINE		4/13/98 HEEA0013889
SOME OF THE LIGHTS DO NOT LIGHT UP. REPLACEMENT PART S/N 453 TAKEN FROM CONSIGNMENT KIT.									
7933 HEEA	60951 2771	SNIAS AS350B2				TEMP PROBE 646600251	FAILED OIL TEMP		4/15/98 HEEA0013913
TEMP PROBE FAILED. GAUGE READING ERRATIC.									
7933 HEEA	60951 2771	SNIAS AS350B2				TEMP PROBE 646600251	BROKEN OIL SYS	105	4/13/98 HEEA0013888
TEMP PROBE BROKEN.									

(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS)



**DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - ENGINES****4/26/98 - 5/2/98 ISSUE: 98-18 ZAC-327**

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
7250 HEEA	22718 3618	BELL 206B3	ALLSN 250C20B		6898735	NOZZLE 6851531	DEFECTIVE NR 4		4/16/98 HEEA0013972
RECEIVED NR4 NOZZLE AND ATTEMPTED TO MACHINE TIP PATHS. NOTED: COATING LIFTING AND FLAKING DURING MACHINING.									
7322 LS1R	206BX 2872	BELL 206B	ALLSN 250C20B			FUEL CONTROL 23056936	DEFECTIVE ENGINE	1730	4/9/98 98ZZZX1620
FUEL CONTROL BEARING - BLUE GREASE WASHED OUT. SENT FOR REPAIR. CNTRL NR 98-4-7.									
7320 HEEA		BELL 412				FUEL CONTROL 324473513	FAILED ENGINE		4/16/98 HEEA0013973
AFCU BROKEN. FOUND PX-PY ADAPTER BROKEN. REPLACED WITH SERVICEABLE PART.									
7250 HEEA	131AE S787	BOLKMS BO105S	ALLSN 250C20B		6898735	NOZZLE 23038218	CRACKED NR 1		1/13/98 HEEA0012578
ENGINE REMOVED DUE TO OIL STARVATION. UPON INSPECTION OF TURBINE PARTS NOTED: CRACKED BEYOND SERVICEABLE LIMITS ON NR1 NOZZLE INNER BAND THROUGH DIAPHRAGM BRONZE FILLET AS MARKED.									
7322 *****	91QS 17268167	CESSNA 172N	LYC O360A4M			CARBURETOR MA4SPA	DEFECTIVE THROTTLE ARM		2/16/98 98ZZZX972
INSPECTION OF THE CARBURETOR DETERMINED THE THROTTLE ARM BECAME LOOSE ON THE SHAFT. THIS CONDITION RESULTED IN LOSS OF CONTROL OF ENGINE RPM. THE NUT AND COTTER PIN WERE INTACT. SUSPECT THE ORIGINAL INSTALLATION WAS NOT PROPERLY INSTALLED AND TORQUED ALLOWING THE ARM TO BECOME LOOSE. IT IS SUGGESTED THAT CORRECT INSTALLATION AND TORQUE WOULD PREVENT THIS CONDITION.									
8550 GJ1R	5772R 17253387	CESSNA 172F	CONT O300D			PISTON 07560201	MISMANUFACTURED OIL FILTER ADAPT		1/28/98 98ZZZX777
OIL FILTER ADAPTER LONGITUDINAL HOLE IN PISTON DOES NOT INTERSECT HOLES DRILLED THROUGH THE CIRCUMFERENCE. NO OIL IS ALLOWED TO THE FILTER ELEMENT. REPLACED PISTON, OPERATION RETURNED TO NORMAL. SUBMITTER STATED PART WAS NOT MADE ACCORDING TO PRINT.									
8520 OVEA	87147 402B1003	CESSNA 402B	CONT TSIO520E			BUSHING 639193	FAILED CRANKSHAFT		1/17/97 97ZZZM670
FLT 131 - TCM TEARDOWN REPORT FOUND COUNTERWEIGHT BUSHING IN CRANKSHAFT CHECK, NR 2 LEADING EDGE, CRACKED AND BROKE UP AFTER ROTATING IN THE BUSHING BORE. THE COUNTERWEIGHT PIN BROKE THOUGH THE PLATE AND SNAP RING AND THEN ESCAPED FROM THE COUNTERWEIGHT. ALL DAMAGE TO THE ENGINE WAS THE RESULT OF THE BUSHING FAILURE WHICH ALLOWED THE PIN TO ESCAPE AND DAMAGE THE CRANKCASE, CAMSHAFT AND NR 2 CONNECTING ROD BOLTS. (M)									
8530 HYIA	6875D 402C0511	CESSNA 402C	CONT TSIO520UB			VALVE SPRING 631521	BROKEN ENGINE INTAKE	1100	2/10/98 98ZZZX989
RIGHT ENGINE RUNNING ROUGH. FOUND 8 OF 12 VALVE SPRINGS BROKEN. REMOVED AND REPLACED ALL VALVE SPRINGS.									
8530 HYIA	6875D 402C0511	CESSNA 402C	CONT TSIO520UB			VALVE SPRING 637837	BROKEN ENGINE EXHAUST	1100	2/10/98 98ZZZX988
RIGHT ENGINE RUNNING ROUGH. FOUND 8 OF 12 VALVE SPRINGS BROKEN. REMOVED AND REPLACED ALL VALVE SPRINGS.									
8530	88604 421C0604	CESSNA 421C	CONT GTSIO520L		654654A1	BOLT 537750	FAILED NR 5 CYL ROCKER	1500	2/10/98 98ZZZX990
PILOT REPORTED OIL LEAKING FROM RIGHT ENGINE. FOUND HOLE IN NR 5 CYLINDER ROCKER COVER. HEAD OF BOLT BROKE OFF THAT ATTACHES ROCKER ARM AND SHAFT TO CYLINDER ASSEMBLY. NEW BOLTS INSTALLED AND NEW ROCKER COVER.									

\*\*\*\*\* DENOTES SIGNIFICANT OCCURRENCE

## DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - ENGINES (cont'd)

4/26/98 To 5/2/98 ISSUE: 98-18 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
7323 LS1R	1097J 90081D	HUGHES 369D	ALLSN 250C20B			GOVERNOR 23057870	MALFUNCTIONED POWER TURBINE	4/9/98 301	98ZZZX1619
PT GOVERNOR WAS SURGING BELOW LIMITS. PT GOVERNOR REPLACED, OPS CHECK OK. AIRCRAFT RETURNED TO SERVICE. CNTRL NR 98-4-5.									
7532 LS1R	1097J 900801D	HUGHES 369D	ALLSN 250C20B			BLEED VALVE 2305317	FAILED ENGINE	4/9/98 1360	98ZZZX1618
ENGINE WOULD NOT MAKE POWER. PERFORMANCE RUN FOUND ENGINE RUNNING WITH EXCESSIVELY HIGH TOT. BLEED VALVE REPLACED, PERFORMANCE CHECK OK, ACFT RETURNED TO SERVICE. CNTRL NR 98-4-6.									
8520	TGWOW 61P068379633	PIPER PA60601P	LYC IO540S1A5			CRANKSHAFT LW10842	FAILED NR 2 JOURNAL	882 8	1/24/98 98ZZZX773
PILOT (OWNER) DEPARTING FROM AIRPORT AND CLIMBING THROUGH 4,000 FEET NOTED LOUD BANG AND SEVERE VIBRATION FROM LT ENGINE. ENGINE SHUT DOWN AND SECURED AND SAFE LANDING MADE. DISASSEMBLY OF ENGINE REVEALED CRANKSHAFT BROKEN. BREAK OCCURRED AT THE REAR CHEEK OF THE NR 2 ROD JOURNAL IN THE RADII. CRANKCASE, RODS, CAMSHAFT AND CLYINDERS ALL NOW N.G.									
7414	40259 277305069	PIPER PA23250	LYC IO540C4B5			MAGNETO 1016301010	FAILED ENG LT MAG	94	2/19/98 98ZZZX957
ENGINE HAD 200 RPM DROP ON LEFT MAGNETO. CHECKED MAG TO ENGINE TIMING, AND COULD NOT GET MAG TIMED TO ENGINE. REMOVED MAG FOR INSPECTION. WHEN MAG WAS OPENED, FOUND MAGNET SHAFT SHEARED AT KEYWAY. THIS MAGNETO WAS A NEW/REBUILD FROM TELEDYNE CONTINENTAL INSTALLED ON THIS AIRCRAFT 94.0 HOURS BEFORE.									
8510  *****	4149Y 2843128	PIPER PA28181	LYC O360A4M			RING GEAR LW10551	WRONG PART STARTER	43	4/14/98 98ZZZX1626
DURING ROUTINE INSPECTION, MECHANIC NOTICED THERE WAS ABNORMAL AMOUNT OF WEAR ON THE STARTER RING GEAR FOR ONLY HAVING 43 HOURS TT ON THE PART. UPON FURTHER INSPECTION, FOUND THE WRONG P/N RING GEAR INSTALLED. THE CORRECT RING GEAR IS P/N 72566 WHICH IS FOR A RT ROTATING ENGINE. THE P/N LW-10551 RING GEAR IS FOR A LT ROTATING ENGINE. THIS IS EVIDENCED WHILE SITTING IN THE PILOT SEAT, THE RING GEAR BEVEL (CHAMFER SIDE) SHOULD BE ON THE RIGHT SIDE FOR RT ROTATION, AND LEFT SIDE FOR LT ROTATION. ALTHOUGH THERE WERE WEAR MARKS, SYSTEM OPERATIONS WERE NORMAL.									
8520	56WB 284470	PIPER PA28180	LYC O360A3A			CRANKSHAFT 77037	CRACKED NR 5 JOURNAL	2/10/98 9	2/10/98 98ZZZX776
CRANKSHAFT WAS FOUND CRACKED AFTER PRECAUTIONARY REMOVAL FOLLOWING RECENT ENGINE OVERHALL (8.8 HRS). CRANKSHAFT WAS PROCESSED BY REPAIR AGENCY PRIOR TO INSTALLATION. SUSPECT PART MAY HAV BEEN IMPROPERLY MACHINED. CRACK WAS AT NR 5 JOURNAL RADIUS APPROX 2.50 INCHES IN LENGTH.									
8520	15008 347250346	PIPER PA34200	LYC LIO360C1E6			CRANKSHAFT LW17577	CRACKED JOURNAL RADII	2/10/98 220	2/10/98 98ZZZX775
PART WAS REMOVED FOR MPI AS A PRECAUTION. THIS CRANKSHAFT WAS RE-WORKED BY AIR AGENCY AND WAS FOUND TO HAVE CRACKS IN THE JOURNAL RADII.									
7250 HEEA	5128 760181	SKRSKY S76A	ALLSN 250C30S		23035128	NOZZLE 23055438	CRACKED NR 2	615	1/13/98 HEEA0012579
ENGINE REMOVED DUE TO TURBINE CYCLES. UPON INSPECTION OF TURBINE PARTS NOTED: CRACKED BEYOND SERVICEABLE LIMITS ON NR 2 NOZZLE VANES AND KEY WELDS.									
7314 HEEA	792CH 760193	SKRSKY S76A				FUEL PUMP 3944001	WORN ENGINE	4/16/98	HEEA0013942
FUEL PUMP WORN DRIVE SHAFT SPLINES AND GEAR SPLINES.									

(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - ENGINES)

**DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - COMPONENTS****4/26/98 - 5/2/98    ISSUE: 98-18    ZAC-327**

<b>ATA OPER</b>	<b>REG. NO SERIAL NO</b>	<b>ACFT MAKE ACFT MODEL</b>	<b>ENG MAKE ENG MDL</b>	<b>PROP MAKE PROP MDL</b>	<b>COMP MFG COMP MDL</b>	<b>PART NAME PART NUMBER</b>	<b>PART COND PART LOC.</b>	<b>TT TSO</b>	<b>DIFF. DATE OPER CONT NO</b>
2211 HEEA	789DS BB478	BEECH 200BEECH				COMPUTER 4008519916	FAILED AUTO FLIGHT		4/16/98 HEEA0013966
VERTICAL ATTITUDE FUNCTION INOPERATIVE.									
2312 HEEA	104PH 3622	BELL 206B3			KX155	TRANSCEIVER 069102405	FAILED COCKPIT		4/16/98 HEEA0013922
RADIO POWERS OFF BY ITSELF. (NO DISPLAY) VERIFIED COMPLAINT. PERFORMED PRELIMINARY INSPECTION AND FOUND UNIT TO HAVE NO DISPLAY DUE TO BURNT SPOT ON DISPLAY BOARD.									
2562 HEEA	5742N 45477	BELL 206L1			NARCO	ELT ELT910	FAILED COCKPIT		4/16/98 HEEA0013956
ELT WILL NOT TURN OFF.									
3421 HEEA	1072T 45385	BELL 206L1				INDICATOR 2360041902	FAILED COCKPIT		4/16/98 HEEA0013969
INDICATOR ROTOR BEARINGS FROZEN.									
3421 HEEA	1078C 45392	BELL 206L1				INDICATOR 2360041902	FAILED COCKPIT		4/16/98 HEEA0013967
ATTITUDE INDICATOR HAS BAD BEARINGS.									
3421 HEEA	2250U 45754	BELL 206L1				INDICATOR 2360041902	FAILED COCKPIT		4/16/98 HEEA0013968
ATTITUDE INDICATOR HAS BAD BEARINGS.									
3452 HEEA	2249Z 45753	BELL 206L1			KT76	TRANSCEIVER 066106200	FAILED COCKPIT		4/16/98 HEEA0013921
PULSE WIDTH OUT OF SPECS. UNABLE TO CHANGE PULSE WIDTH DUE IT BEING A SURFACE MOUNT COMPONENT.									
2312 HEEA	5736J 31140	BELL 212				TRANSCEIVER 7001840903	FAILED COCKPIT		4/16/98 HEEA0013949
TRANSCEIVER DISPLAY 50,250,400 AND 1200 LED'S GO OUT.									
3416 HEEA	1167G 53067	BELL 407				INDICATOR 214175278101	FAILED COCKPIT		4/15/98 HEEA0013914
ENCODER TRANSPONDER READS 200 FEET OFF.									
2200 HEEA	2258F 33073	BELL 412				TARSYN 333 2593996333	FAILED AUTO FLIGHT		1/6/98 HEEA0012525
FAILED TEST 3.1 ON SST BENCH.									
2210 HEEA	107X 33113	BELL 412				TARSYN 2593996333	NOISY COCKPIT		4/16/98 HEEA0013959
TARSYN NOISY BEARING.									
2210 HEEA	2149S 36002	BELL 412				COMPUTER 7000298901	FAILED AFCS		4/2/98 HEEA0013706
FAILED PART 9.3 AND 9.4 ON SST PITCH.									

\*\*\*\*\* DENOTES SIGNIFICANT OCCURRENCE

## DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - COMPONENTS (cont'd)

4/26/98 To 5/2/98 ISSUE: 98-18 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
2210 HEEA	33008 36004	BELL 412				AUTOPILOT CONTRO 7000299901	DEFECTIVE COCKPIT		1/6/98 HEEA0012541
AUTOPILOT CONTROL HP1 AND HP2 LIGHTS ARE TOO DIM WHEN INSTRUMENT LIGHTS ARE DIMMED.									
2211 HEEA	5759N 33002	BELL 412				COMPUTER 4025008918	FAILED AFCS		1/6/98 HEEA0012542
AFCS COMPUTER FAILED TEST 8.3 ON SST BENCH TWICE.									
2562 HEEA	107X 33113	BELL 412			NARCO	ELT ELT910	FAILED COCKPIT		4/16/98 HEEA0013955
ELT INOPERATIVE.									
3120 HEEA	22608 33075	BELL 412				DIGITAL CLOCK M811B	FAILED COCKPIT		4/16/98 HEEA0013951
CLOCK GOES OFF AND ON.									
3420 HEEA	3893N 33010	BELL 412				GYRO 4020936903	FAILED 3 AXIS IND		1/6/98 HEEA0012526
GYRO BLEW CIRCUIT BREAKER ON SST.									
3420 HEEA	3893P 33012	BELL 412				GYRO 4020936903	FAILED 3 AXIS INDICATOR		1/6/98 HEEA0012539
3 AXIS GYRO INDICATOR CAUSES KICKS IN PITCH AND ROLL IN AIRCRAFT.									
3424 HEEA	3911L 33023	BELL 412				RATE GYRO 214075244001	FAILED COCKPIT		4/16/98 HEEA0013950
RATE GYRO TURN NEEDLE STICKS.									
3457 HEEA	2148K 36001	BELL 412				GPS 0110010600	DEFECTIVE COCKPIT		4/16/98 HEEA0013927
SEVERAL LED INOPERATIVE, LOWER DISPLAY. PERFORMED PRELIMINARY INSPECTION. FOUND UNIT DISPLAYING STRANGE CHARACTERS, AND WILL NOT LOCK ON.									
2312 HEEA	81832 S828	BOLKMS BO105S				TRANSCEIVER 064101902	FAILED COCKPIT		4/16/98 HEEA0013930
HEAVY STATIC AND NO SIDETONE. PERFORMED PRELIMINARY INSPECTION. ADJUSTED C/N SQUELCH AND SIDETONE. REPAIRED. ALSO ADJUSTED CARRIER SQUELCH. FOUND TRANSMIT POWER OUT LOW. REPLACED C623 AND C624 CAPACITORS. NO HELP. REPLACED T604 TRANSFORMER. REPAIRED BUT FOUND MODULATIONDISTORTED AT 85% MODULATION. REPLACED Q120, Q121, Q122, Q125 AND Q126 TRANSISTORS. MODULATION STILL DISTORTED.									
2562 HEEA	54191 S804	BOLKMS BO105S			NARCO	ELT ELT910	FAILED COCKPIT		4/16/98 HEEA0013974
ELT COMES ON INTERMITTENTLY.									
2562 HEEA	6607K S841	BOLKMS BO105S			NARCO	ELT ELT910	FAILED COCKPIT		4/16/98 HEEA0013954
ELT WOULD NOT GO OFF POSITION.									
3457 HEEA	137AE S851	BOLKMS BO105S				GPS 0110005400	FAILED COCKPIT		4/16/98 HEEA0013943
2 YEAR INSPECTION DUE. PERFORMED PRELIMINARY INSPECTION. FOUND BACKUP BATTERY TO BE DEAD AND ALSO FOUND PLASTIC ON SIDE OF UNIT TO BE CRACKED.									

\*\*\*\*\* DENOTES SIGNIFICANT OCCURRENCE

## DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - COMPONENTS (cont'd)

4/26/98 To 5/2/98 ISSUE: 98-18 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
2340 HEEA	911RZ 7092	BOLKMS BK117A4				SWITCH ACS1278	MALFUNCTION COCKPIT		4/2/98 HEEA0013680
ICS/PVT SWITCH VIBRATES TO THE OFF POSITION IN FLIGHT.									
3414 HEEA	401PH 7050	BOLKMS BK117A3				INDICATOR 58023060	INTERMITTENT AIRSPEED		4/2/98 HEEA0013829
AIRSPEED INDICATOR LIGHTS INTERMITTENT.									
3440 HEEA	132AE 7238	BOLKMS BK117B2			KPI553A	DISPLAY 066304550	FAILED COCKPIT		4/16/98 HEEA0013953
DIGITAL DISPLAY IS INOPERATIVE.									
3454 HEEA	911RZ 7092	BOLKMS BK117A4			KPI552	INDICATOR 066302440	FAILED COCKPIT		4/16/98 HEEA0013970
COMPASS CARD PRECESSES AND SLOW LOCALIZER.									
3457 HEEA	911NC 7026	BOLKMS BK117A3			SKYNAV 5000	GPS 0845000000	FAILED COCKPIT		4/16/98 HEEA0013931
GPS NOT PICKING UP SATELLITES.									
3457 HEEA	911TL 7198	BOLKMS BK117B1			SKYNAV 5000	GPS 0845000000	FAILED COCKPIT		4/3/98 HEEA0013838
GPS INOPERATIVE. FOUND UNIT NOT PICKING UP ANY SIGNALS; ALSO ENT BUTTON IS VERY INTERMITTENT.									
3424	3284M 310R1892	CESSNA 310R				GYRO 1394T1007Z	FAILED TURN COORDINATOR		10/2/97 98ZZZX960
FAILURE OF THE TURN COORDINATOR WAS NOTICED BY THE PILOT BY THE LACK OF MOVEMENT WHILE FLYING, HOWEVER, THE INOP FLAG WAS NOT PULLED TO THE OFF POSITION. SUBMITTER STATED AN UNDERSTANDING THAT THE FLAG SHOULD INDICATE FAILURE WHEN THE GYRO STOPS SPINNING.									
3425 HEEA	102LU S1548	HUGHES 269C			KI525A	INDICATOR 066304604	STICKS COCKPIT		1/6/98 HEEA0012527
HSI CARD INTERMITTENTLY STICKS IN SLAVE MODE.									
2210 HEEA	4253S 760035	SKRSKY S76A				AMPLIFIER 7611113	FAILED YAW SLICE		1/6/98 HEEA0012520
YAW SLICE AMP CAUSING ACTUATOR TO DEFLECT FULL RIGHT.									
2312 HEEA	22342 760096	SKRSKY S76A				TRANSCIEVER 066106600	FAILED COCKPIT		4/16/98 HEEA0013936
TRANSCIEVER WILL NOT COME UP ON LINE. (DOES NOT TRANSMIT OR RECEIVE) PERFORMED PRELIMINARY INSPECTION. TROUBLESHOT AND FOUND VCO BUFFER, RVTTs, AND IF/AGC BOARDS BAD.									
2312 HEEA	911MJ 760231	SKRSKY S76A			RT 40	TRANSCIEVER 40001278500	FAILED COCKPIT		4/16/98 HEEA0013937
NO TRANSMIT OR RECEIVE (400 MHZ RT INOPERATIVE ON FM RADIO) FOUND K1 RELAY CORRODED. SYNTHESIZER BOARD CAUSES NON-LINEAR POWER.									
2312 HEEA	707AE 760276	SKRSKY S76A			C10	CONTROL UNIT 4000106010	FAILED COCKPIT		4/16/98 HEEA0013948
LED DISPLAY WON'T DIM. PERFORMED PRELIMINARY INSPECTION. REPLACED PHOTOCCELL RT1. REPAIRED PROBLEM. ALSO FOUND THUMBWHEEL INTERMITTENT. CLEANED THUMBWHEEL AND RESOLDERED CONTACTS ON THUMBWHEEL. NO HELP. REPLACED THUMBWHEEL S1. REPAIRED PROBLEM. TOUCHED UP FACEPLATE.BENCH CHECK GOOD.									

\*\*\*\*\* DENOTES SIGNIFICANT OCCURRENCE

## DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - COMPONENTS (cont'd)

4/26/98 To 5/2/98 ISSUE: 98-18 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3416 HEEA	5128 760181	SKRSKY S76A				ENCODER 066306401	FAILED COCKPIT		4/16/98 HEEA0013965
ENCODER INDICATES OUT OF TOLERANCE.									
3421 HEEA	1547D 760077	SKRSKY S76A				VERTICAL GYRO 7660002113103	FAILED COCKPIT		1/6/98 HEEA0012523
VG CAUSES 10 ROLL TO RIGHT.									
3421 HEEA	22342 760096	SKRSKY S76A				VERTICAL GYRO 7660002113103	FAILED COCKPIT		1/6/98 HEEA0012522
COPILOT ATTITUDE INDICATOR PRECESSES.									
3421 HEEA	22342 760096	SKRSKY S76A				VERTICAL GYRO 7660002113103	FAILED COCKPIT		4/16/98 HEEA0013964
NR1 ROLL KICKS. VERT GYRO FAULTY									
3421 HEEA	22342 760096	SKRSKY S76A				VERTICAL GYRO 7660002113103	FAILED COCKPIT		4/16/98 HEEA0013957
NR2 REEL PITCH CHATTERS.									
3434 HEEA	1546G 760076	SKRSKY S76A			KMR 675	RECEIVER 066104400	FAILED COCKPIT		4/16/98 HEEA0013935
OUTER MARKER INOPERATIVE. PERFORMED PRELIMINARY INSPECTION. FOUND WHITE INNER MARKER LIGHT TO BE INOPERATIVE. REPLACED TRANSISTOR Q106. NO HELP. FOUND AGC NOT WORKING. REPLACED INTEGRATED CIRCUIT I105, CAPACITOR C120, RESISTORS R125, R122, AND R128 AND TRANSISTOR Q103.NO HELP.									
2312 HEEA	40466 3004	SNIAS AS350B2				TRANSCEIVER 064105430	FAILED COCKPIT		4/15/98 HEEA0013920
DISPLAY GOES OUT IN FLIGHT. "USE" DISPLAY IS INCORRECT. VERIFIED. "USE" DISPLAY INCORRECT. REPLACED I901 I.C. CHIP - NO HELP. REPLACED I505 AND I506 I.C. CHIPS - REPAIRED. TESTED UNIT. ADJUSTED SIDETONE. BENCH CHECK GOOD.									
3421 HEEA	4000L 2873	SNIAS AS350B2				INDICATOR 5040017901	DEFECTIVE COCKPIT	321	4/16/98 HEEA0013929
ATTITUDE INDICATOR HAS LOOSE SCREW INSIDE OF UNIT.									
(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - COMPONENTS)									

**DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - PROPELLERS****4/26/98 - 5/2/98    ISSUE: 98-18    ZAC-327**

<b>ATA OPER</b>	<b>REG. NO SERIAL NO</b>	<b>ACFT MAKE ACFT MODEL</b>	<b>ENG MAKE ENG MDL</b>	<b>PROP MAKE PROP MDL</b>	<b>COMP MFG COMP MDL</b>	<b>PART NAME PART NUMBER</b>	<b>PART COND PART LOC.</b>	<b>TT TSO</b>	<b>DIFF. DATE OPER CONT NO</b>
6111		AIRTRC AT400		HARTZL HCB3TN3		BLADE T10282N4	CORRODED PROPELLER ASSY		11/1/96 EY2R9601227
		BLADE, SN H44122, FOUND CORRODED.							
6110		BBAVIA 7AC		MCAULY 1B90CM		PROPELLER	CORRODED PROPELLER ASSY		11/1/96 EY2R9601181
		CORROSION FOUND ON FIXED-PITCH PROPELLER.							
6110		BEECH 100BEECH		HARTZL HCB3TN3		STOP COLLAR 3475A2	CORRODED PROPELLER ASSY	9815 1746	10/1/96 EY2R9601157
		LOW STOP COLLAR FOUND WITH CORROSION.							
6111		BEECH 100BEECH		HARTZL HCB3TN3		BLADE T10173E8	CORRODED PROPELLER ASSY		12/1/96 EY2R9601276
		BLADE, SN B51827, FOUND CORRODED							
6111		BEECH 100BEECH		HARTZL HCB3TN3		BLADE T10173E8	CORRODED PROPELLER ASSY		12/1/96 EY2R9601275
		BLADE, SN B51383, FOUND CORRODED							
6111		BEECH 100BEECH		HARTZL HCB3TN3		BLADE T10173E8	CORRODED PROPELLER ASSY		12/1/96 EY2R9601277
		BLADE, SN B51441, FOUND CORRODED.							
6111		BEECH 100BEECH		HARTZL HCB3TN3		BLADE T10173E8	CORRODED PROPELLER ASSY		12/1/96 EY2R9601278
		BLADE, SN B51073, FOUND CORRODED.							
6111		BEECH 100BEECH		HARTZL HCB3TN3		BLADE T10173E8	CORRODED PROPELLER ASSY		12/1/96 EY2R9601274
		BLADE, SN B51384, FOUND CORRODED.							
6111		BEECH 200BEECH		HARTZL HCB3TN3		BLADE T10173E8	CORRODED PROPELLER ASSY		12/1/96 EY2R9601270
		BLADE, SN B51837, FOUND CORRODED.							
6111		BEECH 200BEECH		HARTZL HCB3TN3		BLADE T10173B8	CORRODED PROPELLER ASSY		10/1/96 EY2R9601156
		BLADE, SN B21030, FOUND CORRODED.							
6114		BEECH A23		MCAULY 3AF32C*		HUB D6468C8	CORRODED PROPELLER ASSY		10/1/96 EY2R9601083
		HUB CORRODED.							
6114		BEECH B24R		HARTZL HCM2YR		HUB 4214	CORRODED PROPELLER ASSY		12/1/96 EY2R9601350
		HUB FOUND CORRODED.							

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6111		BEECH F33A		MCAULY 3A32C76		BLADES	CORRODED PROPELLER ASSY		10/1/96 EY2R9601077
		BLADES, SN'S K91889YS,K92027YS,K91828YS, FOUND CORRODED.							
6110		BEECH B35		MCAULY 2A36C23		COVER PLATE B2417	CORRODED PROPELLER ASSY		11/1/96 EY2R9601187
		CORROSION FOUND ON SPLIT COVER PLATE.							
6110		BEECH V35B		MCAULY 3A32C76		NUT C4904	CORRODED PROPELLER ASSY		11/1/96 EY2R9601189
		CORROSION FOUND ON NUT.							
6114		BEECH V35B		MCAULY 2A36C23		HUB C2835C23	CORRODED PROPELLER ASSY		11/1/96 EY2R9601188
		HUB FOUND CORRODED.							
6114		BEECH V35B		MCAULY 3A32C76		HUB D6602C76	CORRODED PROPELLER ASSY		11/1/96 EY2R9601190
		CORROSION FOUND ON HUB.							
6110		BEECH A36		MCAULY 3AF32C*		RETAIN NUT C4904	CORRODED PROPELLER ASSY		12/1/96 EY2R9601356
		RETAIN NUT FOUND CORRODED.							
6110		BEECH A36		MCAULY D3A32C*		RACES C5270	CORRODED PROPELLER ASSY	1704	12/1/96 EY2R9601325
		RACES CORRODED.							
6111		BEECH A36		MCAULY 3A32C76		BLADE 82NB2	CORRODED PROPELLER ASSY		10/1/96 EY2R9601076
		BLADE, SN C44573YS, FOUND CORRODED.							
6111		BEECH 50		BEECH 279100		BLADE 27920798	CORRODED PROPELLER ASSY		11/1/96 EY2R9601185
		BLADE, SN 81160, FOUND CORRODED.							
6111		BEECH 50		BEECH 279100		BLADE 27920798	CORRODED PROPELLER ASSY		11/1/96 EY2R9601186
		BLADE, SN 81164, FOUND CORRODED.							
6114		BEECH 50		BEECH 279100		HUB 279100	CORRODED PROPELLER ASSY		11/1/96 EY2R9601184
		HUB, SN 78, FOUND CORRODED.							
6110		BEECH 95A55		HARTZL PHCA3VF2		SPLIT BEARING 971	CORRODED PROPELLER ASSY	307	10/1/96 EY2R9601174
		CORROSION FOUND ON SPLIT BEARING.							

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6110		BEECH E55		HARTZL BHCC2YF2		BEARINGS 2202	CORRODED PROPELLER ASSY	147	12/1/96 EY2R9601333
		BEARINGS CORRODED.							
6111		BEECH E55		HARTZL BHCC2YF2		BLADE FC84756	CORRODED PROPELLER ASSY	147	12/1/96 EY2R9601331
		BLADE, SN E50359, FOUND CORRODED.							
6111		BEECH E55		HARTZL BHCC2YF2		BLADE FC84756	CORRODED PROPELLER ASSY	147	12/1/96 EY2R9601332
		BLADE, SN E50404, FOUND CORRODED.							
6110		BEECH 58		MCAULY 3AF32C512		DOWEL A4191	CORRODED PROPELLER ASSY	625	10/1/96 EY2R9601082
		DOWEL CORRODED.							
6110		BEECH 58		MCAULY 3AF32C512		PIN A1896	CORRODED PROPELLER ASSY	625	10/1/96 EY2R9601081
		CYLINDER PIN CORRODED.							
6110		BEECH 58		MCAULY D3AF32C35		PIN A1896	CORRODED PROPELLER ASSY		10/1/96 EY2R9601137
		CYLINDER PIN FOUND WITH CORROSION.							
6110		BEECH 58		MCAULY 3AF32C512		BEARING C5270	CORRODED PROPELLER ASSY	1872	12/1/96 EY2R9601306
		BEARING CORRODED.							
6110		BEECH 58		MCAULY D3AF32C35		DOWEL A4191	CORRODED PROPELLER ASSY		10/1/96 EY2R9601138
		DOWEL CORRODED.							
6110		BEECH 65A80		HARTZL HCA3VK2		BEARING 971	CORRODED PROPELLER ASSY	1472 944	10/1/96 EY2R9601155
		SPLIT BEARING FOUND CORRODED.							
6110		BEECH B90		HARTZL HCB3TN3		CLAMP 83888	CORRODED PROPELLER ASSY		11/1/96 EY2R9601226
		CLAMPS, SN'S EK395, EK359, FOUND CORRODED.							
6110		BEECH B95		HARTZL HC92WK2		CLAMP 1301	CORRODED PROPELLER ASSY		12/1/96 EY2R9601354
		PROP SHOULDER CLAMP FOUND CORRODED.							
6110		BEECH B95		HARTZL HC92WK2		BEARING 1303	CORRODED PROPELLER ASSY		12/1/96 EY2R9601353
		BEARING CORRODED.							

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6110		BEECH B95		HARTZL HC92WK2		ROD 855	CORRODED PROPELLER ASSY		12/1/96 EY2R9601355
		CORROSION FOUND ON PITCH CHANGE ROD.							
6110		BEECH B95		HARTZL HC92WK2		SPRING 853	CORRODED PROPELLER ASSY	8435 1391	11/1/96 EY2R9601222
		CORROSION FOUND ON FEATHERING SPRING.							
6110		BEECH B95		HARTZL HC92WK2		BEARING 1303A	CORRODED PROPELLER ASSY	8435 1391	11/1/96 EY2R9601221
		BEARING CORRODED.							
6110		BEECH B95		HARTZL HC92WK2		BEARING 1303A	CORRODED PROPELLER ASSY	8435 1391	11/1/96 EY2R9601220
		BEARING CORRODED.							
6110		BEECH B95		HARTZL HC92WK2		SPRING 853	CORRODED PROPELLER ASSY	8435 1391	11/1/96 EY2R9601223
		CORROSION FOUND ON FEATHERING SPRING.							
6111		BEECH B95		HARTZL HC92WK2		BLADE 844712A	CORRODED PROPELLER ASSY		12/1/96 EY2R9601352
		BLADE, SN C1610, SHANK AREA, FOUND CORRODED.							
6110		BLANCA 1419		HARTZL HC12V20*		BEARING 14B	CORRODED PROPELLER ASSY		12/1/96 EY2R9601348
		BEARING CORRODED.							
6110		BLANCA 1419		HARTZL HC12V20*		JACK PLATE 87	CORRODED PROPELLER ASSY		12/1/96 EY2R9601347
		CORROSION FOUND ON JACK PLATE.							
6110		BLANCA 1419		HARTZL HC12V20*		CLAMP 83812	CORRODED PROPELLER ASSY		12/1/96 EY2R9601349
		CORROSION FOUND ON CLAMP.							
6110		BNORM BN2		HARTZL HCC2YK2		BEARING 2202	CORRODED PROPELLER ASSY		11/1/96 EY2R9601239
		CORROSION FOUND ON SPLIT BEARING.							
6110		BNORM BN2		HARTZL HCC2YK2		BEARING 2202	CORRODED PROPELLER ASSY		11/1/96 EY2R9601240
		CORROSION FOUND ON SPLIT BEARING.							
6110		BNORM BN2B20		HARTZL HCC2YK2		BEARING 2202	CORRODED PROPELLER ASSY		10/1/96 EY2R9601164
		CORROSION FOUND ON SPLIT BEARING.							

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6114		BNORM BN2B20		HARTZL HCC2YK2		HUB 220116	CORRODED PROPELLER ASSY	1999	10/1/96 EY2R9601163
		CORROSION FOUND ON HUB.							
6111		BOEING A75N1		MCAULY 41D5926		BLADE MC42	CORRODED PROPELLER ASSY		12/1/96 EY2R9601287
		BLADE, SN 424274, FOUND CORRODED.							
6114		BOEING A75N1		MCAULY 41D5926		HUB D5926	CORRODED PROPELLER ASSY		12/1/96 EY2R9601286
		HUB FOUND CORRODED.							
6110		CESSNA 140		MCAULY 1B90CM		PROPELLER	CORRODED PROPELLER ASSY		11/1/96 EY2R9601180
		CORROSION FOUND ON FIXED-PITCH PROPELLER.							
6110		CESSNA 140		MCAULY 1B90CM		PROPELLER	CORRODED PROPELLER ASSY		11/1/96 EY2R9601179
		CORROSION FOUND ON FIXED-PITCH PROPELLER.							
6110		CESSNA 150		MCAULY 1A101HCM		PROPELLER	CORRODED PROPELLER ASSY		11/1/96 EY2R9601178
		CORROSION FOUND ON FIXED-PITCH PROPELLER.							
6111		CESSNA 172		HARTZL HCC2YK1		BLADE F7666A	CORRODED PROPELLER ASSY		11/1/96 EY2R9601236
		BLADE, SN F52931, FOUND CORRODED.							
6111		CESSNA 172		HARTZL HCC2YK1		BLADE F7666A	CORRODED PROPELLER ASSY		11/1/96 EY2R9601235
		BLADE, SN F52834, FOUND CORRODED.							
6114		CESSNA 172		HARTZL HCC2YK1		HUB 220117	CORRODED PROPELLER ASSY		11/1/96 EY2R9601233
		HUB CORRODED.							
6114		CESSNA 172RG		MCAULY B2D34C220		HUB C5078C220	CORRODED PROPELLER ASSY		10/1/96 EY2R9601126
		HUB FOUND CORRODED.							
6114		CESSNA 177B		MCAULY B2D34C208		HUB C208	CORRODED PROPELLER ASSY		10/1/96 EY2R9601123
		HUB FOUND CORRODED.							
6110		CESSNA 180K		MCAULY C2A34C204		BEARING C3411	CORRODED PROPELLER ASSY		11/1/96 EY2R9601207
		CORROSION FOUND ON BEARING RACE.							

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6114		CESSNA 180G		MCAULY 2A36C29		HUB C4526C29	CORRODED PROPELLER ASSY		10/1/96 EY2R9601074
		HUB CORRODED.							
6114		CESSNA 180H		MCAULY 2A36C29		HUB C4526C29	CORRODED PROPELLER ASSY		10/1/96 EY2R9601073
		HUB CORRODED.							
6110		CESSNA 182		MCAULY C2A34C204		CYLINDER C6263	CORRODED PROPELLER ASSY	1771	11/1/96 EY2R9601206
		CYLINDER CORRODED.							
6110		CESSNA 182F		MCAULY D3A32C*		BEARING A16349	CORRODED PROPELLER ASSY	676	11/1/96 EY2R9601208
		BALL BEARING CORRODED.							
6110		CESSNA 182P		MCAULY 2A34C203		DOWEL A4001	CORRODED PROPELLER ASSY		10/1/96 EY2R9601070
		DOWEL CORRODED.							
6110		CESSNA 182R		MCAULY B2D34C219		PLATE C5046	CORRODED PROPELLER ASSY		10/1/96 EY2R9601125
		PLATE CORRODED.							
6110		CESSNA 182R		MCAULY C2A34C204		DOWEL A4001	CORRODED PROPELLER ASSY	3080 1478	10/1/96 EY2R9601129
		DOWEL CORRODED.							
6110		CESSNA 182R		MCAULY B2D34C219		PISTON TUBE B2345	CORRODED PROPELLER ASSY		10/1/96 EY2R9601124
		PISTON TUBE FOUND CORRODED.							
6114		CESSNA 182		MCAULY 2A34C66		HUB C5480C66	CORRODED PROPELLER ASSY		12/1/96 EY2R9601341
		CORROSION FOUND ON HUB.							
6114		CESSNA 182		MCAULY C2A34C204		HUB C4801C204	CORRODED PROPELLER ASSY		10/1/96 EY2R9601128
		CORROSION FOUND ON HUB.							
6114		CESSNA 182		MCAULY 2A34C203		HUB C3910C203	CORRODED PROPELLER ASSY		10/1/96 EY2R9601068
		HUB CORRODED.							
6114		CESSNA 182		MCAULY 2A34C203		HUB C3910C203	CORRODED PROPELLER ASSY		10/1/96 EY2R9601069
		HUB CORRODED.							

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6114		CESSNA 182		MCAULY 2A34C201		HUB C3910C201	CORRODED PROPELLER ASSY		10/1/96 EY2R9601067
		HUB CORRODED.							
6111		CESSNA 185E		MCAULY D3A34C403		BLADE G80VA0	CORRODED PROPELLER ASSY		10/1/96 EY2R9601136
		BLADE, SN BG318, FOUND CORRODED.							
6111		CESSNA 185E		MCAULY D3A34C403		BLADE G80VA0	CORRODED PROPELLER ASSY		10/1/96 EY2R9601135
		BLADE, SN BK434, FOUND CORRODED.							
6111		CESSNA 185E		MCAULY D3A34C403		BLADE G80VA0	CORRODED PROPELLER ASSY		10/1/96 EY2R9601134
		BLADE, SN BK472, FOUND CORRODED.							
6110		CESSNA 188CESSNA		MCAULY D2A34C98		FERRULE C3054	CORRODED PROPELLER ASSY		10/1/96 EY2R9601131
		FERRULE FOUND CORRODED.							
6111		CESSNA 188CESSNA		MCAULY 2A34C66		BLADE S90AT8	CORRODED PROPELLER ASSY		10/1/96 EY2R9601072
		BLADE, SN B20147YS, FOUND CORRODED.							
6111		CESSNA 188CESSNA		MCAULY 2A34C66		BLADE S90AT8	CORRODED PROPELLER ASSY		10/1/96 EY2R9601071
		BLADE, SN B23171YS, FOUND CORRODED.							
6110		CESSNA P206C		MCAULY D3A32C88		RACE C2987	CORRODED PROPELLER ASSY	512	12/1/96 EY2R9601266
		RACE CORRODED.							
6110		CESSNA U206		MCAULY D3A34C404		BEARINGS C5270	CORRODED PROPELLER ASSY	2643	12/1/96 EY2R9601268
		BEARINGS FOUND CORRODED.							
6110		CESSNA U206		MCAULY D3A34C404		RETAINERS C3903	CORRODED PROPELLER ASSY	2643	12/1/96 EY2R9601269
		RETAINERS FOUND CORRODED.							
6114		CESSNA 206CESSNA		MCAULY D2A34C58		HUB C4716C58	CORRODED PROPELLER ASSY		10/1/96 EY2R9601130
		CORROSION FOUND ON HUB.							
6114		CESSNA U206		MCAULY D3A34C404		HUB D5858C404	CORRODED PROPELLER ASSY	2643	12/1/96 EY2R9601267
		HUB CORRODED.							

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6110		CESSNA 208		MCAULY 3GFR34C703		SCREW B5177	CORRODED PROPELLER ASSY	2760	10/1/96 EY2R9601120
		SCREW CORRODED.							
6110		CESSNA 208		MCAULY 3GFR34C703		SCREW B5177	CORRODED PROPELLER ASSY		11/1/96 EY2R9601197
		SCREW CORRODED.							
6110		CESSNA 208		MCAULY 3GFR34C703		SCREW B5177	CORRODED PROPELLER ASSY	2490	11/1/96 EY2R9601198
		SCREW CORRODED.							
6110		CESSNA 208		MCAULY 3GFR34C703		SCREW B5177	CORRODED PROPELLER ASSY	2887	12/1/96 EY2R9601304
		SCREW CORRODED.							
6110		CESSNA 208		MCAULY 3GFR34C703		CYLINDER D5010	CORRODED PROPELLER ASSY	2887	12/1/96 EY2R9601305
		CYLINDER CORRODED.							
6110		CESSNA 208		MCAULY 3GFR34C703		CYLINDER D5010	CORRODED PROPELLER ASSY	2760	10/1/96 EY2R9601122
		CYLINDER FOUND CORRODED.							
6110		CESSNA 208		MCAULY 3GFR34C703		SCREW B5177	CORRODED PROPELLER ASSY	2791	11/1/96 EY2R9601199
		SCREW CORRODED.							
6110		CESSNA 208		MCAULY 3GFR34C703		SCREW B5177	CORRODED PROPELLER ASSY	2688	10/1/96 EY2R9601121
		SCREW CORRODED.							
6110		CESSNA 208		MCAULY 3GFR34C703		SCREW B5177	CORRODED PROPELLER ASSY	2995	11/1/96 EY2R9601200
		SCREW CORRODED.							
6110		CESSNA T210*		MCAULY D3A34C402		BEARING C5270	CORRODED PROPELLER ASSY		12/1/96 EY2R9601303
		BEARING RACE FOUND CORRODED.							
6110		CESSNA T210M		MCAULY D3A34C402		PISTON C4784	CORRODED PROPELLER ASSY		11/1/96 EY2R9601217
		PISTON CORRODED.							
6110		CESSNA T210M		MCAULY D3A34C402		CYLINDER C5264	CORRODED PROPELLER ASSY		11/1/96 EY2R9601218
		CYLINDER CORRODED.							

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6110		CESSNA T210M		MCAULY D3A34C402		BEARING C5270	CORRODED PROPELLER ASSY		11/1/96 EY2R9601219
		RETAIN BEARING CORRODED.							
6110		CESSNA T210M		MCAULY D3A34C402		RETAINER C3903	CORRODED PROPELLER ASSY		11/1/96 EY2R9601216
		CORROSION FOUND ON SPLIT RETAINER.							
6110		CESSNA T210M		MCAULY D3A34C402		ACTUATOR PIN B48202	CORRODED PROPELLER ASSY		11/1/96 EY2R9601215
		ACT PIN ASSEMBLY FOUND CORRODED.							
6110		CESSNA T210M		MCAULY D3A34C402		PISTON LINK PIN A4738	CORRODED PROPELLER ASSY		11/1/96 EY2R9601214
		CORROSION FOUND ON PISTON LINK PIN.							
6110		CESSNA T210M		MCAULY D3A34C402		SPRING A3125	CORRODED PROPELLER ASSY		11/1/96 EY2R9601212
		CORROSION FOUND ON PITCH RETURN SPRING							
6111		CESSNA 210		MCAULY D2A34C*		BLADE 90DFA10	CORRODED PROPELLER ASSY		12/1/96 EY2R9601282
		BLADE, SN BH469, FOUND CORRODED.							
6111		CESSNA 210		MCAULY D2A34C*		BLADE 90DFA10	CORRODED PROPELLER ASSY		12/1/96 EY2R9601283
		BLADE, SN BH489, FOUND CORRODED.							
6111		CESSNA 210		MCAULY D2A34C*		BLADE 90DFA10	CORRODED PROPELLER ASSY		12/1/96 EY2R9601284
		BLADE, SN BH500, FOUND CORRODED.							
6111		CESSNA T210M		MCAULY D3A34C402		BLADE 90DFA10	CORRODED PROPELLER ASSY		11/1/96 EY2R9601209
		BLADE, SN 124558, FOUND CORRODED.							
6111		CESSNA T210M		MCAULY D3A34C402		BLADE 90DFA10	CORRODED PROPELLER ASSY		11/1/96 EY2R9601211
		BLADE, SN 125242, FOUND CORRODED.							
6111		CESSNA T210M		MCAULY D3A34C402		BLADE 90DFA10	CORRODED PROPELLER ASSY		11/1/96 EY2R9601210
		BLADE, SN 125221, FOUND CORRODED.							
6114		CESSNA 210		MCAULY D2A34C*		HUB D5858C402	CORRODED PROPELLER ASSY		12/1/96 EY2R9601285
		HUB FOUND CORRODED.							

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6110		CESSNA T303		MCAULY 3AF32C506		BEARING C3411	CORRODED PROPELLER ASSY	2993 1650	11/1/96 EY2R9601191
		BEARING RACE CORRODED.							
6110		CESSNA T303		MCAULY 3AF32C506		RETAINER C3903	CORRODED PROPELLER ASSY	2993 1650	11/1/96 EY2R9601192
		SPLIT RETAINER FOUND CORRODED.							
6110		CESSNA T303		MCAULY 3AF32C507		RACES C3411	CORRODED PROPELLER ASSY	2993 1650	12/1/96 EY2R9601321
		RACES CORRODED.							
6110		CESSNA T303		MCAULY 3AF32C507		KEEPERS C3903	CORRODED PROPELLER ASSY	2993 1650	12/1/96 EY2R9601320
		CORROSION FOUND ON KEEPERS.							
6110		CESSNA 310K		MCAULY D2AF34C81		FERRULES C4450	CORRODED PROPELLER ASSY		12/1/96 EY2R9601342
		FERRULES CORRODED.							
6110		CESSNA 310P		MCAULY 3AF32C87		BLADE ACT PIN B4459	CORRODED PROPELLER ASSY		10/1/96 EY2R9601091
		BLADE ACT PIN FOUND CORRODED.							
6110		CESSNA 310P		MCAULY 3AF32C87		CYLINDER PIN A1896	CORRODED PROPELLER ASSY		10/1/96 EY2R9601088
		CYLINDER PIN FOUND CORRODED.							
6110		CESSNA 310P		MCAULY 3AF32C87		DOWEL A4191	CORRODED PROPELLER ASSY		10/1/96 EY2R9601089
		DOWEL CORRODED.							
6110		CESSNA 310P		MCAULY 3AF32C87		PIN B3490	CORRODED PROPELLER ASSY		10/1/96 EY2R9601090
		CORROSION FOUND ON PISTON ROD PIN.							
6110		CESSNA 310P		MCAULY 3AF32C87		CYLINDER C3550	CORRODED PROPELLER ASSY		10/1/96 EY2R9601092
		CORROSION FOUND ON FEATHER C YLINDER.							
6110		CESSNA 310P		MCAULY 3AF32C87		FERRULE C4451	CORRODED PROPELLER ASSY		10/1/96 EY2R9601100
		FERRULE FOUND CORRODED.							
6110		CESSNA 310Q		MCAULY 3AF32C87		FERRULE C4451	CORRODED PROPELLER ASSY	5217 1299	12/1/96 EY2R9601295
		FERRULE FOUND CORRODED.							

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6110		CESSNA 310Q		MCAULY 3AF32C87		FERRULE C4451	CORRODED PROPELLER ASSY	2895 1295	12/1/96 EY2R9601297
		FERRULE FOUND CORRODED.							
6110		CESSNA 310R		MCAULY 3AF32C87		PIN A1896	CORRODED PROPELLER ASSY	2780 1480	10/1/96 EY2R9601094
		CYLINDER PIN FOUND CORRODED.							
6110		CESSNA 310R		MCAULY 3AF32C87		CYLINDER C3550	CORRODED PROPELLER ASSY	2780 1480	10/1/96 EY2R9601098
		CORROSION FOUND ON CYLINDER.							
6110		CESSNA 310R		MCAULY 3AF32C87		DOWEL A4191	CORRODED PROPELLER ASSY	2780	10/1/96 EY2R9601097
		DOWEL CORRODED.							
6110		CESSNA 310R		MCAULY 3AF32C87		DOWEL A4191	CORRODED PROPELLER ASSY	2780 1480	10/1/96 EY2R9601096
		DOWEL CORRODED.							
6110		CESSNA 310R		MCAULY 3AF32C87		PIN A1896	CORRODED PROPELLER ASSY	2780	10/1/96 EY2R9601095
		CYLINDER PIN FOUND CORRODED.							
6110		CESSNA 310R		MCAULY 3AF32C87		RACE C2987	CORRODED PROPELLER ASSY	1223	12/1/96 EY2R9601249
		CORROSION FOUND ON RACE.							
6111		CESSNA 310		MCAULY 3AF32C87		BLADE S82NC55	CORRODED PROPELLER ASSY		10/1/96 EY2R9601085
		BLADE FOUND CORRODED.							
6111		CESSNA 310		MCAULY 3AF32C87		BLADE S82NC4	CORRODED PROPELLER ASSY		10/1/96 EY2R9601087
		BLADE, SN C41944YS, FOUND CORRODED.							
6111		CESSNA 310K		MCAULY D3AF32C80		BLADE S82NC2	CORRODED PROPELLER ASSY		10/1/96 EY2R9601139
		BLADE, SN F73319YS, FOUND CORRODED.							
6111		CESSNA 310K		MCAULY D3AF32C80		BLADE S82NC2	CORRODED PROPELLER ASSY		10/1/96 EY2R9601140
		BLADE, SN F32952YS, FOUND CORRODED.							
6111		CESSNA 310K		MCAULY D3AF32C80		BLADE S82NC2	CORRODED PROPELLER ASSY		10/1/96 EY2R9601141
		BLADE, SN F32834YS, FOUND CORRODED.							

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6111		CESSNA 310P		MCAULY 3AF32C87		BLADE S82NC4	CORRODED PROPELLER ASSY	696	10/1/96 EY2R9601093
		BLADE, SN BG397YS, FOUND CORRODED.							
6111		CESSNA 310Q		MCAULY 3AF32C87		BLADE S82NC4	CORRODED PROPELLER ASSY		12/1/96 EY2R9601290
		BLADE, SN F26156YS, FOUND CORRODED.							
6111		CESSNA 310Q		MCAULY 3AF32C87		BLADE S82NC4	CORRODED PROPELLER ASSY		12/1/96 EY2R9601289
		BLADE, SN F26088YS, FOUND CORRODED.							
6111		CESSNA 310Q		MCAULY 3AF32C87		BLADE S82NC4	CORRODED PROPELLER ASSY		12/1/96 EY2R9601288
		BLADE, SN F26105YS, FOUND CORRODED.							
6111		CESSNA 310Q		MCAULY 3AF32C87		BLADE S82NC55	CORRODED PROPELLER ASSY	2895 1295	12/1/96 EY2R9601300
		BLADE, SN K95983YS, FOUND CORRODED.							
6111		CESSNA 310Q		MCAULY 3AF32C87		BLADE S82NC55	CORRODED PROPELLER ASSY	2895 1295	12/1/96 EY2R9601298
		BLADE, SN F84468YS, FOUND CORRODED.							
6111		CESSNA 310Q		MCAULY 3AF32C87		BLADE S82NC55	CORRODED PROPELLER ASSY	2895 1295	12/1/96 EY2R9601299
		BLADE, SN F90225YS, FOUND CORRODED.							
6114		CESSNA 310		MCAULY 3AF32C87		HUB D7015C87	CORRODED PROPELLER ASSY		10/1/96 EY2R9601086
		HUB FOUND CORRODED.							
6114		CESSNA 310P		MCAULY 3AF32C87		HUB D7015C87	CORRODED PROPELLER ASSY	1229	10/1/96 EY2R9601101
		HUB CORRODED.							
6114		CESSNA 310Q		MCAULY 3AF32C87		HUB D7015C87	CORRODED PROPELLER ASSY	5217 1299	12/1/96 EY2R9601296
		HUB FOUND WITH CORROSION.							
6114		CESSNA 310R		MCAULY 3AF32C87		HUB D7015C87	CORRODED PROPELLER ASSY	1223	12/1/96 EY2R9601248
		NR 1 SOCKET FOUND CORRODED.							
6110		CESSNA 335		MCAULY 3AF32C87		ACT PIN B4459	CORRODED PROPELLER ASSY	1507	12/1/96 EY2R9601244
		ACT. PIN RUSTED.							

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6110		CESSNA 335		MCAULY 3AF32C87		LOCKNUT C7036	CORRODED PROPELLER ASSY	1507	12/1/96 EY2R9601243
		CORROSION FOUND ON LOCKNUT.							
6114		CESSNA 335		MCAULY 3AF32C87		HUB D7015C87	CORRODED PROPELLER ASSY	1507	12/1/96 EY2R9601242
		HUB FOUND CORRODED.							
6110		CESSNA 337		MCAULY D2AF34C61		PIN A1896	CORRODED PROPELLER ASSY		10/1/96 EY2R9601132
		CYLINDER PIN FOUND CORRODED.							
6110		CESSNA 337		MCAULY D2AF34C61		DOWEL A4001	CORRODED PROPELLER ASSY		10/1/96 EY2R9601133
		DOWEL CORRODED.							
6110		CESSNA 337A		MCAULY D2AF34C61		LOCKNUT C4905	CORRODED PROPELLER ASSY	2250	12/1/96 EY2R9601265
		LOCKNUT CORRODED.							
6110		CESSNA 337A		MCAULY D2AF34C59		ACT PIN C4458	CORRODED PROPELLER ASSY	2250	12/1/96 EY2R9601262
		ACT. PIN FOUND RUSTED.							
6111		CESSNA 337A		MCAULY D2AF34C61		BLADE L76C0	CORRODED PROPELLER ASSY	2250	12/1/96 EY2R9601264
		BLADE, SN D2514YS, FOUND CORRODED.							
6114		CESSNA 337A		MCAULY D2AF34C61		HUB D4885	CORRODED PROPELLER ASSY	2250	12/1/96 EY2R9601263
		HUB FOUND CORRODED.							
6110		CESSNA 340A		MCAULY 3AF32C93		PISTON C40603	CORRODED PROPELLER ASSY		12/1/96 EY2R9601250
		PISTON CORRODED.							
6110		CESSNA 340A		MCAULY 3AF32C93		FERRULE C4451	CORRODED PROPELLER ASSY		12/1/96 EY2R9601253
		FERRULE CORRODED.							
6110		CESSNA 340A		MCAULY 3AF32C93		RETAIN NUT C3475	CORRODED PROPELLER ASSY		12/1/96 EY2R9601254
		RETAIN NUT FOUND CORRODED.							
6110		CESSNA 340A		MCAULY 3AF32C93		PISTON C40603	CORRODED PROPELLER ASSY		12/1/96 EY2R9601255
		PISTON CORRODED.							

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6110		CESSNA 340A		MCAULY 3AF32C93		RETAIN NUT C3475	CORRODED PROPELLER ASSY		12/1/96 EY2R9601256
		RETAIN NUT CORRODED.							
6110		CESSNA 340A		MCAULY 3AF32C93		RETAIN NUT C3475	CORRODED PROPELLER ASSY		12/1/96 EY2R9601257
		RETAIN NUT CORRODED.							
6110		CESSNA 340A		MCAULY 3AF32C93		FERRULE C4451	CORRODED PROPELLER ASSY		10/1/96 EY2R9601112
		FERRULE FOUND WITH CORROSION.							
6110		CESSNA 340A		MCAULY 3AF32C93		RETAIN NUT C3475	CORRODED PROPELLER ASSY		12/1/96 EY2R9601258
		RETAIN NUT CORRODED.							
6110		CESSNA 340A		MCAULY 3AF32C93		FERRULE C4451	CORRODED PROPELLER ASSY		12/1/96 EY2R9601252
		FERRULE CORRODED.							
6110		CESSNA 340A		MCAULY 3AF32C93		PIN A1896	CORRODED PROPELLER ASSY		10/1/96 EY2R9601104
		CYLINDER PIN FOUND CORRODED.							
6110		CESSNA 340A		MCAULY 3AF32C93		BEARING C2987	CORRODED PROPELLER ASSY		10/1/96 EY2R9601109
		RETAIN BEARING FOUND CORRODED.							
6110		CESSNA 340A		MCAULY 3AF32C93		PISTON ROD PIN B3490	CORRODED PROPELLER ASSY		10/1/96 EY2R9601108
		PISTON ROD PIN FOUND CORRODED.							
6110		CESSNA 340A		MCAULY 3AF32C93		FERRULE C4451	CORRODED PROPELLER ASSY		10/1/96 EY2R9601111
		FERRULE FOUND WITH CORROSION.							
6110		CESSNA 340A		MCAULY 3AF32C93		RETAIN BEARING C2987	CORRODED PROPELLER ASSY		10/1/96 EY2R9601110
		RETAIN BEARING FOUND CORRODED.							
6110		CESSNA 340A		MCAULY 3AF32C93		PIN A1896	CORRODED PROPELLER ASSY		10/1/96 EY2R9601105
		CYLINDER PIN FOUND CORRODED.							
6110		CESSNA 340A		MCAULY 3AF32C93		DOWEL A4191	CORRODED PROPELLER ASSY		10/1/96 EY2R9601107
		DOWEL CORRODED.							

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6110		CESSNA 340A		MCAULY 3AF32C93		DOWEL A4191	CORRODED PROPELLER ASSY		10/1/96 EY2R9601106
		DOWEL CORRODED.							
6111		CESSNA 340A		MCAULY 3AF32C93		BLADE 82NC55	CORRODED PROPELLER ASSY		10/1/96 EY2R9601102
		BLADE, SN K82853YS, FOUND CORRODED.							
6111		CESSNA 340A		MCAULY 3AF32C93		BLADE 82NC55	CORRODED PROPELLER ASSY		10/1/96 EY2R9601103
		BLADE, SN K82928YS, FOUND CORRODED.							
6111		CESSNA 340A		MCAULY 3AF32C93		BEARING C2987	CORRODED PROPELLER ASSY		12/1/96 EY2R9601259
		BLADE BEARING FOUND CORRODED.							
6111		CESSNA 340A		MCAULY 3AF32C93		BEARING C2987	CORRODED PROPELLER ASSY		12/1/96 EY2R9601251
		BLADE BEARING FOUND CORRODED.							
6110		CESSNA 401		MCAULY 3AF32C*		RACES C3411	CORRODED PROPELLER ASSY	866	12/1/96 EY2R9601323
		RACES CORRODED.							
6110		CESSNA 401		MCAULY 3AF32C*		RACES B3490	CORRODED PROPELLER ASSY	866	12/1/96 EY2R9601324
		RACES CORRODED.							
6110		CESSNA 401		MCAULY 3AF32C*		KEEPERS C3903	CORRODED PROPELLER ASSY	866	12/1/96 EY2R9601322
		CORROSION FOUND ON KEEPERS.							
6110		CESSNA 402B		MCAULY 3AF32C87		RACES C2987	CORRODED PROPELLER ASSY	5695 772	12/1/96 EY2R9601319
		RACES CORRODED.							
6110		CESSNA 402B		MCAULY 3AF32C87		BEARING C2987	CORRODED PROPELLER ASSY		11/1/96 EY2R9601193
		RETAIN BEARING FOUND CORRODED.							
6110		CESSNA 402C		MCAULY 3AF32C505		BEARING A16349	CORRODED PROPELLER ASSY	1501	10/1/96 EY2R9601080
		BALL BEARING CORRODED.							
6110		CESSNA 402C		MCAULY 3AF32C93		BEARING C2987	CORRODED PROPELLER ASSY	4020 1379	11/1/96 EY2R9601194
		RETAIN BEARING FOUND CORRODED.							

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6110		CESSNA 402C		MCAULY 3AF32C93		BEARING C2987	CORRODED PROPELLER ASSY	4020 1379	11/1/96 EY2R9601195
		RETAIN BEARING FOUND CORRODED.							
6111		CESSNA 402C		MCAULY 3AF32C93		RETAINERS PROPELLER	CORRODED PROPELLER ASSY		12/1/96 EY2R9601260
		BLADES, SN'S F44301YS, F44956YS, AND F44460YS, FOUND CORRODED.							
6111		CESSNA 402CESSNA		MCAULY 3AF32C87		BLADE S82NC2	CORRODED PROPELLER ASSY		12/1/96 EY2R9601245
		BLADE, SN K56449YS, FOUND CORRODED.							
6111		CESSNA 402CESSNA		MCAULY 3AF32C87		BLADE S82NC55	CORRODED PROPELLER ASSY		10/1/96 EY2R9601099
		BLADE, SN K103232YS, FOUND ON CYLINDER.							
6111		CESSNA 402CESSNA		MCAULY 3AF32C87		BLADE S82NC55	CORRODED PROPELLER ASSY		10/1/96 EY2R9601084
		BLADE, SN K62383YS, FOUND CORRODED.							
6111		CESSNA 402CESSNA		MCAULY 3AF32C87		BLADE S82NC2	CORRODED PROPELLER ASSY		12/1/96 EY2R9601246
		BLADE, SN K56826YS, FOUND CORRODED.							
6111		CESSNA 402CESSNA		MCAULY 3AF32C87		BLADE S82NC4	CORRODED PROPELLER ASSY		12/1/96 EY2R9601247
		BLADE, SN F40087YS, FOUND CORRODED.							
6114		CESSNA 402C		MCAULY 3AF32C93		HUB D5892C93	CORRODED PROPELLER ASSY	4020 1379	11/1/96 EY2R9601196
		CORROSION FOUND ON HUB.							
6110		CESSNA 414		MCAULY 3AF32C505		DOWEL A4191	CORRODED PROPELLER ASSY	1858 755	10/1/96 EY2R9601079
		DOWEL CORRODED.							
6110		CESSNA 414		MCAULY 3AF32C93		RACES C2987	CORRODED PROPELLER ASSY		12/1/96 EY2R9601317
		RACES CORRODED.							
6110		CESSNA 414		MCAULY 3AF32C93		RACES C2987	CORRODED PROPELLER ASSY		12/1/96 EY2R9601318
		RACES CORRODED.							
6110		CESSNA 414		MCAULY 3AF32C505		PIN A1896	CORRODED PROPELLER ASSY	1858 755	10/1/96 EY2R9601078
		CORROSION FOUND ON CYLINDER PIN.							

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6114		CESSNA 414		MCAULY 3AF32C93		HUB D4344C93	CORRODED PROPELLER ASSY		12/1/96 EY2R9601316
		HUB FOUND CORRODED.							
6110		CESSNA 421		MCAULY 3AF34C92		NUT C7036	CORRODED PROPELLER ASSY	3692 1168	12/1/96 EY2R9601308
		NUT CORRODED.							
6110		CESSNA 421B		MCAULY 3AF34C92		NUT C7036	CORRODED PROPELLER ASSY	6108	12/1/96 EY2R9601273
		NUT CORRODED.							
6110		CESSNA 421C		MCAULY 3FF32C501		BEARING C5270	CORRODED PROPELLER ASSY		10/1/96 EY2R9601117
		RETAIN BEARING CORRODED.							
6110		CESSNA 421C		MCAULY 3FF32C501		PIN A1896	CORRODED PROPELLER ASSY		10/1/96 EY2R9601113
		CYLINDER PIN FOUND CORRODED.							
6110		CESSNA 421C		MCAULY 3FF32C501		DOWEL A4191	CORRODED PROPELLER ASSY		10/1/96 EY2R9601114
		DOWEL CORRODED.							
6110		CESSNA 421C		MCAULY 3FF32C501		ACT PIN ASSY B48201	CORRODED PROPELLER ASSY		10/1/96 EY2R9601116
		ACT PIN ASSY FOUND CORRODED.							
6110		CESSNA 421C		MCAULY 3FF32C501		ROD D3474	CORRODED PROPELLER ASSY		10/1/96 EY2R9601118
		PISTON ROD ASSY FOUND WITH CORROSION.							
6110		CESSNA 421C		MCAULY 3FF32C501		RETAIN RING B4426	CORRODED PROPELLER ASSY		10/1/96 EY2R9601115
		RETAIN RING FOUND CORRODED.							
6111		CESSNA 421		MCAULY 3AF34C92		BLADE S90LF0	CORRODED PROPELLER ASSY		12/1/96 EY2R9601261
		BLADE, SN C31669YS, FOUND CORRODED.							
6111		CESSNA 421		MCAULY 3FF32C501		BLADE 90UMB0	CORRODED PROPELLER ASSY		12/1/96 EY2R9601279
		BLADE SHANK, SN K76136, FOUND CORRODED.							
6111		CESSNA 421		MCAULY 3FF32C501		BLADE 90UMB0	CORRODED PROPELLER ASSY		12/1/96 EY2R9601280
		BLADE SHANK, SN K76140, FOUND CORRODED.							

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## DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - PROPELLERS (cont'd)

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ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
6111		CESSNA 421		MCAULY 3FF32C501		BLADE 90UMB0	CORRODED PROPELLER ASSY	55	12/1/96 EY2R9601281
		BLADE SHANK, SN K76153, FOUND CORRODED.							
6114		CESSNA 421		MCAULY 3AF34C92		HUB D7019C92	CORRODED PROPELLER ASSY	3692 1168	12/1/96 EY2R9601307
		HUB FOUND CORRODED.							
6114		CESSNA 421C		MCAULY 3FF32C501		HUB D5878C501	CORRODED PROPELLER ASSY		10/1/96 EY2R9601119
		HUB FOUND CORRODED.							
6110		DHAV DHC6300		HARTZL HCB3TN3		CLAMP 83867	CORRODED PROPELLER ASSY	24237 2961	11/1/96 EY2R9601231
		CLAMPS, SN'S EF2929, EF8442, AND EF9704, FOUND CORRODED.							
6110		DHAV DHC6300		HARTZL HCB3TN3		BEARING 1851T	CORRODED PROPELLER ASSY	24237 2961	11/1/96 EY2R9601229
		BEARING CORRODED.							
6110		DHAV DHC6300		HARTZL HCB3TN3		BEARINGS 1851T	CORRODED PROPELLER ASSY		12/1/96 EY2R9601334
		BEARINGS CORRODED.							
6110		DHAV DHC6300		HARTZL HCB3TN3		BEARING 1851T	CORRODED PROPELLER ASSY	14123 3404	11/1/96 EY2R9601228
		BEARING CORRODED.							
6111		DORNER DO228*		HARTZL HCB4TN5		BLADE LT10574FS	CORRODED PROPELLER ASSY		10/1/96 EY2R9601159
		BLADE, SN H05668, FOUND CORRODED.							
6111		DORNER DO228*		HARTZL HCB4TN5		BLADE LT10574FS	CORRODED PROPELLER ASSY		10/1/96 EY2R9601161
		BLADE, SN F58721, FOUND CORRODED.							
6111		DORNER DO228*		HARTZL HCB4TN5		BLADE LT10574FS	CORRODED PROPELLER ASSY		10/1/96 EY2R9601160
		BLADE, SN H05667, FOUND CORRODED.							
6110		GULSTM AA5		MCAULY 1C172*		PROPELLER	CORRODED PROPELLER ASSY		11/1/96 EY2R9601183
		CORROSION FOUND ON FIXED-PITCH PROPELLER.							
6110		ISRAEL ARAVA101		HARTZL HCB3TN3		BEARING 1851T	CORRODED PROPELLER ASSY		11/1/96 EY2R9601230
		BEARING CORRODED.							

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## DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - PROPELLERS (cont'd)

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6110		MOONEY M20E		HARTZL HCC2YK1		SOCKET SET SCREW 2421	CORRODED PROPELLER ASSY		10/1/96 EY2R9601162
		PROP ASSY SOCKET SCREW CORRODED							
6110		PIPER PA11		MCAULY 1B90CM		PROPELLER	CORRODED PROPELLER ASSY		11/1/96 EY2R9601182
		CORROSION FOUND ON FIXED-PITCH PROPELLER.							
6110		PIPER PA23		HARTZL HCA2VK2		PILOT TUBE 14962	CORRODED PROPELLER ASSY	1531	10/1/96 EY2R9601145
		CORROSION FOUND ON PILOT TUBES. REMOVED AND REPLACED PILOT TUBES.							
6110		PIPER PA23		HARTZL HCA2VK2		BEARING 971	CORRODED PROPELLER ASSY	9880 789	10/1/96 EY2R9601149
		CORROSION FOUND ON SPLIT BEARING.							
6110		PIPER PA23		HARTZL HCA2VK2		CLAMP 83812	CORRODED PROPELLER ASSY	1531	10/1/96 EY2R9601147
		CLAMP CORRODED.							
6110		PIPER PA23		HARTZL HCA2VK2		BEARING 971	CORRODED PROPELLER ASSY	1531	10/1/96 EY2R9601148
		CORROSION FOUND ON SPLIT BEARING.							
6110		PIPER PA23		HARTZL HCA2VK2		PILOT TUBE 14962	CORRODED PROPELLER ASSY	9880 789	10/1/96 EY2R9601146
		CORROSION FOUND ON PILOT TUBES. REMOVED AND REPLACED PILOT TUBES.							
6110		PIPER PA23160		HARTZL HC82VL2		BEARING 14B	CORRODED PROPELLER ASSY		12/1/96 EY2R9601345
		BEARING CORRODED.							
6110		PIPER PA23160		HARTZL HC82VL2		CLAMP 83811	CORRODED PROPELLER ASSY		12/1/96 EY2R9601346
		CLAMP CORRODED.							
6110		PIPER PA23250		HARTZL HCE2YK2		RACES 2202	CORRODED PROPELLER ASSY		12/1/96 EY2R9601330
		RACES CORRODED.							
6110		PIPER PA23250		HARTZL HCE2YK2		BEARING 2202	CORRODED PROPELLER ASSY		12/1/96 EY2R9601327
		BEARING CORRODED.							
6110		PIPER PA23250		HARTZL HCE2YK2		BEARING 2202	CORRODED PROPELLER ASSY		11/1/96 EY2R9601241
		CORROSION FOUND ON SPLIT BEARING.							

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## DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - PROPELLERS (cont'd)

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6111		PIPER PA23		HARTZL HC82XL2		BLADE	CORRODED PROPELLER ASSY		12/1/96 EY2R9601294
		BLADE, SN'S 103647, 104122, FOUND CORRODED.							
6111		PIPER PA23250		HARTZL HCE2YK2		BLADE F84657R	CORRODED PROPELLER ASSY		12/1/96 EY2R9601328
		BLADE, SN C37674, FOUND CORRODED.							
6111		PIPER PA23250		HARTZL HCE2YK2		BLADE F84657R	CORRODED PROPELLER ASSY		12/1/96 EY2R9601329
		BLADE, SN C38521, FOUND CORRODED.							
6114		PIPER PA23250		HARTZL HCE2YK2		HUB 24772R	CORRODED PROPELLER ASSY		12/1/96 EY2R9601326
		HUB FOUND CORRODED.							
6110		PIPER PA24250		HARTZL HCA2V*		BEARING 971	CORRODED PROPELLER ASSY	430	11/1/96 EY2R9601224
		CORROSION FOUND ON SPLIT BEARING.							
6110		PIPER PA24250		HARTZL HC82V*		CYLINDER 806	CORRODED PROPELLER ASSY	4516	10/1/96 EY2R9601143
		CYLINDER CORRODED.							
6110		PIPER PA24250		HARTZL HC82V*		CLAMP 8382	CORRODED PROPELLER ASSY	4516	10/1/96 EY2R9601144
		CLAMP CORRODED.							
6110		PIPER PA24250		HARTZL HCA2XK1		BOLT 13333	CORRODED PROPELLER ASSY		10/1/96 EY2R9601150
		BOLT FOUND CORRODED.							
6110		PIPER PA24250		HARTZL HCA2XK1		BOLT 13336	CORRODED PROPELLER ASSY		10/1/96 EY2R9601151
		BOLT FOUND CORRODED.							
6110		PIPER PA24250		HARTZL HCA2XK1		CLAMP 8382	CORRODED PROPELLER ASSY		10/1/96 EY2R9601152
		CLAMP FOUND CORRODED.							
6110		PIPER PA24250		HARTZL HCA2XK1		BEARING 971	CORRODED PROPELLER ASSY		10/1/96 EY2R9601153
		SPLIT BEARING FOUND CORRODED.							
6110		PIPER PA24250		HARTZL HCA2XK1		BEARING J2016	CORRODED PROPELLER ASSY		10/1/96 EY2R9601154
		BEARING FOUND CORRODED.							

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## DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - PROPELLERS (cont'd)

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6110		PIPER PA24250		HARTZL HCA2V*		SPLIT BEARING 971	CORRODED PROPELLER ASSY		11/1/96 EY2R9601225
		CORROSION FOUND ON SPLIT BEARING.							
6110		PIPER PA24250		HARTZL HC82V*		BEARING 14B	CORRODED PROPELLER ASSY	4516	10/1/96 EY2R9601142
		BEARING CORRODED.							
6110		PIPER PA28R201T		HARTZL BHCC2YF1		PIN 5002X118	CORRODED PROPELLER ASSY	764 356	10/1/96 EY2R9601127
		PIN CORRODED.							
6111		PIPER PA28R180		HARTZL HCC2YR1		BLADE F7666A	CORRODED PROPELLER ASSY		10/1/96 EY2R9601165
		BLADE, SN H57236, FOUND CORRODED.							
6114		PIPER PA28*		HARTZL HCC2YK1		HUB 22013	CORRODED PROPELLER ASSY		11/1/96 EY2R9601234
		HUB CORRODED.							
6114		PIPER PA28*		HARTZL HCC2YK1		HUB 2201	CORRODED PROPELLER ASSY		12/1/96 EY2R9601338
		CORROSION FOUND ON HUB.							
6110		PIPER PA31P350		HARTZL HCI3YR2		SPRING 15941	CORRODED PROPELLER ASSY		10/1/96 EY2R9601173
		CORROSION FOUND ON FEATHERING SPRING.							
6110		PIPER PA32300		HARTZL HCC2YR1		BEARING 2202	CORRODED PROPELLER ASSY	3331	12/1/96 EY2R9601271
		BEARING FOUND CORRODED.							
6110		PIPER PA32301		HARTZL HCC2YK1		BEARING 2202	CORRODED PROPELLER ASSY		11/1/96 EY2R9601238
		CORROSION FOUND ON SPLIT BEARING.							
6111		PIPER PA32300		HARTZL HCC2YR1		BLADE F8475D4	CORRODED PROPELLER ASSY	3331	12/1/96 EY2R9601272
		SHANK FOUND CORRODED.							
6114		PIPER PA32301		HARTZL HCC2YK1		HUB 220117	CORRODED PROPELLER ASSY		11/1/96 EY2R9601237
		HUB FOUND CORRODED.							
6110		PIPER PA34200		HARTZL HCC2YK2		BEARINGS 2202	CORRODED PROPELLER ASSY		12/1/96 EY2R9601336
		BEARINGS CORRODED.							

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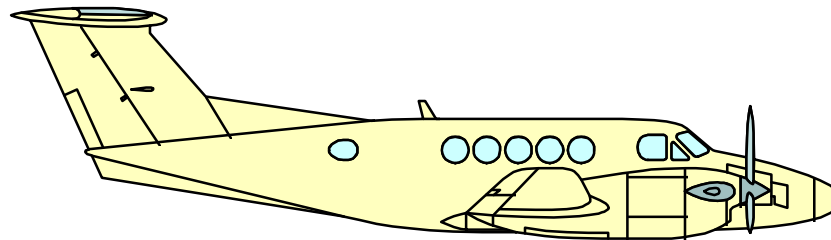
## DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - PROPELLERS (cont'd)

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6110		PIPER		HARTZL		BEARINGS	CORRODED		12/1/96
		PA34200		HCC2YK2		2202	PROPELLER ASSY		EY2R9601335
	BEARINGS CORRODED.								
6110		PIPER		HARTZL		BEARING	CORRODED		12/1/96
		PA34200		BHCC2YF2		2202	PROPELLER ASSY		EY2R9601343
	BEARING CORRODED.								
6110		PIPER		HARTZL		ROD	CORRODED		12/1/96
		PA34200		BHCC2YF2		24913	PROPELLER ASSY		EY2R9601344
	CORROSION FOUND O PITCH CHANGE ROD.								
6114		PIPER		HARTZL		HUB	CORRODED		12/1/96
		PA34*		BHCC2YF2		2201	PROPELLER ASSY		EY2R9601339
	CORROSION FOUND ON HUB.								
6114		PIPER		HARTZL		HUB	CORRODED		12/1/96
		PA34*		BHCC2YF2		2201	PROPELLER ASSY		EY2R9601340
	CORROSION FOUND ON HUB.								
6110		STN SON		HAMSTD		PROPELLER	CORRODED		10/1/96
		SM8A		2B20		55210	PROPELLER ASSY	101	EY2R9601075
	CORRODED PROP ASSY								
(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - PROPELLERS)									



# **INTERNATIONAL SERVICE DIFFICULTY REPORT**



**INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT****4/26/98 - 5/2/98 ISSUE: 98-18 ZAC-327**

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
2710		BBAVIA 8GCBC				CABLE 12339	CROSSED AILERON RT	8	10/26/93 CA931108010
(CAN) AFTER WING REPLACEMENT AT AMERICAN CHAMPION AIRCRAFT FACTORY, RT AILERON CABLE FOUND TWISTED AND OVERLAPPED BETWEEN AILERON SECTOR AND THE PULLEY. ITEMS 65 AND 64 FIG 4 PAGE 13 OF BELLANCA SCOUT PARTS MANUAL.									
2710		BBAVIA 8GCBC				CABLE 12339	CROSSED AILERON LT		10/26/93 CA931108011
(CAN) AFTER WING REPLACEMENT AT AMERICAN CHAMPION AIRCRAFT FACTORY, LT AILERON CABLES FOUND TWISTED AND OVERLAPPED BETWEEN AILERON SECTOR AND PULLEY ITEMS 65 AND 64 FIG 4 PAGE 13 OF BELLANCA SCOUT PART MANUAL.									
2742		BEECH B100			TELEFLEX 11538011119	ARMATURE 8F353	FAILED HORIZ STAB ACT		11/22/93 CA931126008
(CAN) HORIZONTAL STABILIZER ACTUATOR INTERMITTENT. INSPECTION OF PRIMARY MOTOR SHOWED WINDINGS LOOSE FROM COMMUTATOR CAUSING DEAD SPOT ON ARMATURE.									
2750		BEECH 100BEECH	PWA PT6A28			CABLE 140774116	SHEARED RIGHT FLAP		11/27/97 CA971216051
(CAN) ON TAKEOFF, 15 DEGREE FLAP SELECTED AND THEN FLAPS SELECTED UP. ONLY LEFT SIDE WENT UP. RIGHT SIDE STAYED DOWN. LANDED WITHOUT INCIDENT. CABLE ENDS AT GEARBOX FOUND SHEARED. SUBMITTER SUSPECTS A PREVIOUS OVERLOAD OF FLAP SYSTEM THAT STRESSED THE CABLES.									
3150		BEECH 100BEECH	PWA PT6A28			AMPLIFIER 993642461	FAILED	10515	3/27/97 CA970506001
(CAN) INTEGRATED CIRCUITS WITHIN TRIM CONTROL AMPLIFIER FAILED. NO AURAL WARNING OF TRIM IN MOTION. REPLACED.									
3233		BEECH A100	PWA PT6A28		99810057651	PINION SHIM 99810057651	LOOSE MLG ACTUATOR		5/28/97 CA970603010
(CAN) PINION SHAFT LOOSE AFTER SHORT TIME IN SERVICE.									
3233		BEECH A100	PWA PT6A28		99810057652	ACTUATOR 99810057652	FAILED MLG		5/28/97 CA970603011
(CAN) ACTUATOR FAILED. PART TC: 2,496.									
3233		BEECH A100	PWA PT6A28		AVIADESIGN ADI79990033	PISTON ROD ADI79990035	CORROSION MLG	719	5/13/97 CA970520004
(CAN) PISTON ROD FOUND CORRODED AT CONTACT POINT OF FELT WIPER IN DOWN POSITION. REPLACED. PART TC: 879.									
3233		BEECH A100	PWA PT6A28		508202085	PINION GEAR ALG3871	LOOSE NOSE GEAR		11/27/97 CA971216063
(CAN) INTRANSIT LIGHT ON IN-FLIGHT. LANDED OK. NOSE ACTUATOR HAD EXCESSIVE PLAY IN THE PINION GEAR AND WAS VERY NOISY. PART TC: 317.									
3260		BEECH A100	PWA PT6A34			WIRE	BROKEN RT MLG DOWN		5/7/97 CA970513011
(CAN) WHILE ON TRAINING, THE CREW SELECTED THE GEAR DOWN AND THE AIRCRAFT RESPONDED NORMALLY, EXCEPT RT GEAR DOWN LIGHT FAILED TO ILLUMINATE. FLY-BY CONFIRMED THAT GEAR DOWN. A/C LANDED. FOUND BROKEN WIRE, REPAIRED.									
3610		BEECH A100	PWA PT6A28			DUCT	MISALIGNED BLEED AIR		11/25/97 CA971216059
(CAN) BLEED AIR DUCTS FOUND MISALIGNED UNDER THE COPILOT'S FLOOR AFTER MAINTENANCE.									

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## INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT (cont'd)

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5311		BEECH A100	PWA PT6A28			FRAME 5042002857	CRACKED	14240	7/22/97 CA970728001
(CAN) FRAME AT STN 207 APPROX EIGHT INCHES ABOVE FLOOR LEVEL ON LT SIDE CRACKED FROM LOWER TWO LIGHTING HOLES TO THE STRINGER CUT-OUT. REPAIRED. PART TC: 15,135. AIRCRAFT TT: 13,917 HOURS.									
5330		BEECH A100	PWA PT6A28			SKIN	CRACKED BELLY	17413	11/14/97 CA971216053
(CAN) AIRCRAFT SKIN FOUND CRACKED ON THE BOTTOM OF FUSELAGE AFT OF THE MAIN SPAR ON EACH OUTBOARD SIDE. CRACKS OUTSIDE OF BELLY SPLICE PLATES. AIRCRAFT TT: 17,540 HOURS.									
5520		BEECH 100BEECH	PWA PT6A28			CASTING 115610010325	CRACKED ELEV		2/19/97 CA970306002
(CAN) ELEVATOR ATTACH CASTING CRACKED FROM INBOARD TAPER HOLE TO INBOARD EDGE OF CASTING. REPLACED. PART TT: 18,624 HOURS.									
5610		BEECH A100	PWA PT6A28		PPG	WINDSHIELD BA2918	BURNED LT COCKPIT	1415	10/22/93 CA931108204
(CAN) IN CRUISE, WINDSHIELD HEAT ON HEAVY SMOKE OBSERVED COMING FROM BOTTOM CENTER OF WINDSHIELD. WINDSHIELD SELECTED OFF, SMOKE STOPPED. GROUND TEST, WINDSHIELD SMOKED AND CAUGHT FIRE. POWER OFF. WINDSHIELD INNER PANE THEN SHATTERED. BURN DAMAGE BETWEEN WINDSHIELD HEAT POWER CONNECTOR BLOCK ON WINDSHIELD AND HEAT STRIP WHERE IT ENTERS WINDSHIELD. PART TC: 1,713. ACFT TT: 11,200 HOURS.									
5610		BEECH A100	PWA PT6A28			WINDOW 50420066437	BUBBLED PILOT SIDE		12/10/97 CA971216066
(CAN) PILOTS SIDE WINDOW FOUND BUBBLED ON THE EDGE OF THE WINDSHIELD.									
5751		BEECH A100	PWA PT6A28			SKIN 991300009	CRACKED LT-RT AILERON	10982	11/18/96 CA961203007
(CAN) LEFT AILERON UPPER AND LOWER SKINS CRACKED ALONG SPAR AT TRAILING EDGE OF LEADING EDGE SKIN. RIGHT AILERON LOWER SKIN CRACKED SAME PLACE. ALSO, P/N 99-13000-197 AND -199.									
5753		BEECH A100	PWA PT6A28			SPAR 5016000396 5016000354	CRACKED INB FLAP TRACK	9988	10/28/96 CA961030002
(CAN) AT THE SPAR CUTOUT WHICH THE INBOARD FLAP TRACK PASSES AS THE FLAP IS RETRACTED, A .50 INCH CRACK WAS FOUND, EXTENDING FROM THE TOP INBOARD CORNER INTO THE BEND RADIUS BETWEEN THE WEB AND FLANGE. PART TC: 10,196. AIRCRAFT TT: 10,017 HOURS.									
5753		BEECH A100	PWA PT6A28			SPAR 5016000396 5016000354	CRACKED LEFT INB FLAP	9695	10/25/96 CA961029006
(CAN) SMALL CRACK, APPROXIMATELY 0.750 INCH IN LENGTH FOUND ON INBOARD FLAP SPAR. CRACK LOCATED AT INBOARD FLAP TRACK ATTACHMENT POINT IN THE MAIN SPAR. FURTHER INVESTIGATION FOUND A LARGER CRACK ABOUT 6 INCHES LONG FURTHER OUTBOARD IN THE UPPER SPAR RADIUS. PART TC: 10,304. AIRCRAFT TT: 9,734 HOURS.									
7540		BEECH A100	PWA PT6A28			LINE	MELTED BLEED WARN		11/20/97 CA971216056
(CAN) BLEED AIR WARNING LINE HAD MELTED WHICH GAVE READING OF BLEED AIR FAIL LIGHT. NO FAILURE OF BLEED AIR SYSTEM JUST LACK OF INSULATION BY DISTRIBUTION BOX.									
2110		BEECH 200BEECH	PWA PT6A41			COMPRESSOR 1138000 1138000	FAILED CABIN AIR COND		3/22/96 AU960426
(AUS) RH ENGINE DRIVEN AIRCONDITIONING COMPRESSOR FAILED DUE TO SEVERE OVERHEATING - COMPRESSOR PULLEY BEARING COLLAPSED - COMPRESSOR CLUTCH SECTION SEPARATED FROM THE PULLEY ASSEMBLY BUT WAS STILL CONNECTED TO THE DRIVE SHAFT AND WAS SWUNG AROUND CONTRIBUTING TO THE VIBRATION									

\*\*\*\*\* DENOTES SIGNIFICANT OCCURRENCE

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2915		BEECH 200BEECH	PWA PT6A41		MS28893C6	VALVE MS28893C6	FAILED HYD PRESS RELIEF	4462	1/31/97 CA970523003
(CAN) HYDRAULIC PUMP WAS OBSERVED RUNNING CONTINUOUSLY. MAINTENANCE FOUND THE THERMAL PRESSURE RELIEF VALVE TO BE OPENING AT 1200 PSI INSTEAD OF THE RATED 2250 PSI. VALVE CHANGED.									
3230		BEECH 200BEECH	PWA PT6A41			CONNECTOR 1225P363	CORRODED MLG	308	4/28/97 CA970513024
(CAN) AFTER TAKEOFF, THE PILOTS SELECTED GEAR UP, BUT THE LANDING GEAR WOULD NOT CYCLE UP, TWO MORE SELECTIONS, BUT THE GEAR WOULD NOT CYCLE UP AND THE HYD PUMP RED LIGHT WOULD NOT COME ON. STILL HAD THREE GREEN GEAR SAFE LIGHTS. FLY-BY TOWER CONFIRMED GEAR DOWN. LANDED AND A/C HANGARED AND FOUND 60 AMP CIRCUIT BREAKER TRIPPED AND LANDING GEAR PRESSURE SWITCH CANNON PLUG CORRODED. PLUG CLEANED AND CIRCUIT BREAKER RESET, RETRACTIONS CARRIED OUT OK. PART TC: 457.									
3260		BEECH 200BEECH	PWA PT6A41			SWITCH 1003810061	FAILED NLG DOWNLOCK		12/17/96 CA961231001
(CAN) ON APPROACH, GEAR DOWN SELECTED WITH 3 GREENS. WHEN FLAPS SELECTED BEYOND APPROACH SETTING OR WHEN POWER LEVERS WERE REDUCED BELOW 400 POUNDS TORQUE, GEAR WARNING HORN WOULD SOUND AND GEAR IN-TRANSIT LIGHT CAME ON. NOSE GEAR DOWNLOCK MICROSWITCH NOT FULLY DEPRESSED. WHEN HAND PRESSURE APPLIED TO STRIKER PLATE BOTH HORN AND IN-TRANSIT LIGHT WOULD GO OUT. SWITCH ADJUSTED.									
3260		BEECH B200C	PWA PT6A42			SWITCH 1003810061	FAILED NOSE GEAR	811	11/26/96 CA961218005
(CAN) THIS AIRCRAFT'S ELECTRICAL LANDING GEAR SYSTEM HAD BEEN REPLACED WITH A HYDRAULIC SYSTEM. THE NOSE GEAR GREEN LIGHT DID NOT COME ON WHEN THE GEAR WAS DOWN AND LOCKED. THUS, THE PILOT HAD TO DO SEVERAL GEAR CYCLES AND A FLY-BY. HE LANDED OK. THE NOSE GEAR DOWN AND LOCKED SWITCH WAS REPLACED. IT IS BEING REPLACED AT ABOUT 8 TO 900 HOUR INTERVALS. PART TC: 654.									
3260		BEECH A36	CONT IO550B			CONNECTOR 2078101	LOOSE NLG DOWNLOCK		10/30/97 CA971106002
(CAN) DURING LANDING, NOSE WHEEL DOWN LOCK LIGHT CAME ON INTERMITTENTLY. AIRCRAFT LANDED SAFELY. TROUBLESHOOTING REVEALED A BULKHEAD ELECTRICAL CONNECTOR FROM WHEEL BAY TO THE ENGINE COMPARTMENT WAS DISCONNECTED EVEN THOUGH IT WAS IN PLACE. THE PLASTIC TAB LOCK RING COULD NOT BE SECURED WITH THE PLUG FULLY INSERTED IN THE RECEPTACLE.									
3230		BEECH E55	CONT IO520C			SWITCH BZ3AT	FROZEN LDG GEAR SAFETY		11/22/93 CA931129005
(CAN) ON TAKEOFF, GEAR FAILED TO RETRACT. LT MLG SAFETY SWITCH FROZEN. AIRCRAFT HAD JUST BEEN WASHED AND OAT WAS -31 DEGREES CELSIUS.									
3222		BEECH 58	CONT IO520C		96B200163	STRUT 96B200163	CRACKED NLG	2454	3/24/97 CA970401014
(CAN) CRACK FOUND IN OLEO TO STRUT CASTING. REPLACED.									
3230		BEECH 70				ACTUATOR MC2711	STICKY LIMIT SWITCH		10/31/93 CA931105301
(CAN) LANDING GEAR FAILED TO RETRACT. INSPECTION FOUND UPLIMIT SWITCH ACTUATOR STICKY.									
2721		BEECH 65A90	PWA PT6A20			BOLT AN1736	MISSING RUDDER TAB		3/18/97 CA970326008
(CAN) IN CRUISE AT 11,500 FEET, A/C DEVELOPED NOTICEABLE VIBRATION, AUTOPILOT DISCONNECTED AND A/C STARTED A ROLL TO THE RIGHT. CONTROL REGAINED AND AT 8,000 FEET, VIBRATION WAS VERY CRITICAL. COPILOT HAD BOTH FEET ON RUDDER PEDALS TO DAMPEN VIBRATION. RUDDER TRIM TAB TO ACTUATOR BOLT MISSING. REPLACED.									
5522		BEECH B90	PWA PT6A20			SKIN 50610000295	CRACKED ELEV	10829	5/7/97 CA970513010
(CAN) DURING 150 HR INSPECTION OF ELEVATOR AND STAB SKIN PER BEECH SI 0086-131, A 10 INCH CRACK WAS FOUND IN THE ELEVATOR UPPER SKIN BARREL TO DIRECTION OF FLIGHT ON THE EDGE OF OVERLAP OF TWO SKINS. SKIN REPLACED. AIRCRAFT TT: 11,077 HOURS.									

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5753		BEECH 65A90	PWA PT6A20		5016000396	SPAR 5016000354	CRACKED LT INB FLAP	11239	10/25/96 CA961029007
(CAN) SMALL CRACK, APPROXIMATELY 0.750 INCH IN LENGTH WAS DETECTED ON THE LEFT INBOARD FLAP SPAR AT THE INBOARD FLAP TRACK ATTACHMENT POINT ON THE UPPER SKIN FROM THE RIVET. A LARGER CRACK WAS THEN FOUND, APPROXIMATELY 4 TO 6 INCHES IN LENGTH, FURTHER OUTBOARD IN THE UPPER SPAR RADIUS. PART TC: 26,270. AIRCRAFT TT: 14,306 HOURS.									
5753		BEECH 65A90	PWA PT6A20		5016000396	SPAR 5016000354	CRACKED INB FLAP TRACK	12763	10/28/96 CA961030001
(CAN) AT INBOARD FLAP TRACK CUTOUT IN THE SPAR THERE ARE TWO CRACKS EXTENDING FROM THE TOP CORNERS OF THE CUTOUT INTO THE BEND RADIUS. EACH CRACK ABOUT 2 INCHES LONG. PART TC: 16,223. AIRCRAFT TT: 12,807 HOURS.									
5753		BEECH 65A90	PWA PT6A20		5016000396	SPARS 5016000354	CRACKED LT/RT FLAP	10847	10/28/96 CA961104007
(CAN) BOTH INBOARD FLAP SPARS WERE FOUND WITH CRACKS ON THE SPAR. THESE CRACKS WERE LOCATED AT THE AREA WHERE THE BRACKET FOR THE ROLLERS ATTACH. RIGHT HAND SPAR IS A 50-160003-55. PART TC: 10,688. AIRCRAFT TT: 10,893 HOURS.									
5753		BEECH 65A90	PWA PT6A20		5016000396	SPAR 5016000354	CRACKED LT INB FLAP	11837	10/31/96 CA961113006
(CAN) LEFT INBOARD FLAP SPAR FOUND WITH A CRACK AT THE INBOARD AREA WHERE THE BRACKET ROLLERS ATTACH. PART TC: 11,398. AIRCRAFT TT: 11,883 HOURS.									
2752		BEECH B99	PWA PT6A28		505212224	GEAR AFA3841	WORN FLAP ACTUATOR		11/19/97 CA971216055
(CAN) INNER WORM GEAR TEETH OF FLAP ACTUATOR FOUND WORN. EXCESSIVE PLAY IN 90 DEGREE DRIVE.									
2913		BEECH B99	PWA PT6A28		9938800211	COUPLER 115811026	STRIPPED GEAR MOTOR	2775	11/19/97 CA971216054
(CAN) COUPLER BETWEEN LANDING GEAR MOTOR AND HYDRAULIC POWER PACK THREADS STRIPPED. COULD NOT RETRACT OR EXTEND GEAR WITH MOTOR. EMERGENCY SYSTEM USED. PART TC: 5,343.									
3260		BEECH 99A	PWA PT6A28			SWITCH 404EN516	FAILED LT MLG		12/10/97 CA971216064
(CAN) LEFT MAIN NOT INDICATING SAFE. POSITION SWITCH REPLACED.									
5711		BEECH 99	PWA PT6A20			SPAR	FAILED RIGHT WING	30219	12/6/96 CA961218006
(CAN) ON LANDING, THERE WAS A MAJOR FAILURE OF THE RIGHT WING STRUCTURE BETWEEN THE NACELLE AND THE FUSELAGE. TSB INVESTIGATING. PART TC: 22,672.									
5740		BEECH 99	PWA PT6A27			BOLT 114255S	CRACKED RT UPPER FORWARD		11/10/93 CA931125302
(CAN) COMPLYING WITH AD 92-15-13, WING ATTACH BOLT NDT CHECKED WITH DYE PEN AND FOUND CRACKED. BOLT SENT OUT FOR SEPARATE ANALYSIS AND CRACK VERIFIED. ACFT TT: 41,848 HOURS.									
7160		BNORM BN2B20	LYC IO540K1B5		LYC IO540K1B5	HOSE 352002034	FAULTY ACFT,ENG AIR INT		3/28/96 AU960431
(AUS) RH ENGINE INDUCTION HOSE INTERNAL WIRE SEPARATING FROM HOSE - FOUND DURING INSPECTION IAW AD/BN2/57									
5321		CESSNA 150L				FLOOR PAN 411342	CRACKED SEAT RAILS	4370	11/6/93 CA931119104
(CAN) FLOOR PAN CRACKED, APPROXIMATELY 2 INCHES LONG AT FORWARD END OF 3 OUT OF 4 SEAT RAILS. AIRCRAFT TT: 4,375 HOURS.									

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5730		CESSNA 170B				WINGS	CORRODED LDG EDGE		11/22/93 CA931126007
(CAN) AIRCRAFT STRIPPED FOR REPAINT. CORROSION FOUND UNDER FAYING EDGES OF A HORTON STALL LEADING EDGE KIT. LEADING EDGE REMOVED AND CORROSION BAD UNDER ENTIRE DROOPED LEADING EDGE. PROBLEM POSSIBLY CAUSED BY IMPROPER PRIMING PRIOR TO INSTALLATION OF KIT.									
2430		CESSNA 172M				WIRE	SHORTED OVERVOLTAGE LAMP		11/2/93 CA931121401
(CAN) TOTAL ELECTRICAL FAILURE. ALTERNATOR FIELD CIRCUIT BREAKER TRIPPED. BREAKER RESET AND ELECTRICAL POWER RESTORED. ALTERNATOR SHOWED OVERCHARGE. OVERVOLTAGE LAMP WIRES FOUND BROKEN OFF AND SHORTED BEHIND INSTRUMENT PANEL. THIS CAUSED CIRCUIT BREAKER TO TRIP.									
2730		CESSNA 172F				BRACKET 513633	CRACKED ELEV BELLCRANK	2428	10/26/93 CA931112608
(CAN) ELEVATOR BELLCRANK BRACKET FOUND CRACKED. WHEN BRACKET REMOVED, SEVERAL OTHER CRACKS NOTED. THIS IS SECOND TIME THIS WAS FOUND ON SIMILAR AIRCRAFT.									
2750		CESSNA 172M		MCAULY 1C160DTM		TRACK 052323113	CRACKED TE FLAP		9/5/96 CA961009009
(CAN) FLAP TRACK FOUND CRACKED ON THE INBOARD SIDE, PROBABLY DUE TO A DEFECTIVE ROLLER BEARING.									
3242		CESSNA 172				BRAKE CALIPER 61319	CRACKED HYDRAULIC PORTS	8000	5/20/93 CA931029001
(CAN) BRAKE CALIPER ASSEMBLY LEAKING AND CRACKED AT HYDRAULIC PORTS. SEVERAL ASSEMBLIES REPLACED IN LAST MONTHS.									
3242		CESSNA 172M				BRAKE 06130019	CRACKED RT MLG		4/10/97 CA970428011
(CAN) RIGHT BRAKE HOUSING CRACKED. REPLACED.									
7120		CESSNA 172K	LYC O320E2D			ENGINE RAIL 05131323	CRACKED MT BOLT HOLE	15020	6/26/97 CA970709010
(CAN) DURING MAINTENANCE, IT WAS DISCOVERED THAT THE LEFT HAND ENGINE RAIL WAS CRACKED. P/N 0513132-3 STRINGER ASSY IN THE FUSELAGE FRONT SECTION WAS REPLACED. THE ENGINE RAIL WAS CRACKED AROUND THE ENGINE MOUNT BOLT HOLE.									
7160		CESSNA 172M	LYC O320E2D			CABLE 5123015	BROKEN CARB HEAT	2830	5/5/97 CA970523005
(CAN) CARBURETOR HEAT CABLE BROKE OFF 3 INCHES FROM KNOB DURING GROUND CHECK. REPLACED.									
7160		CESSNA 172P	LYC O320D2J			ARM ASSY 055018016	CRACKED CARB HEAT	2242	3/3/97 CA970326006
(CAN) DURING RUN-UP, CARBURETOR HEAT INOPERATIVE. CARBURETOR HEAT CONTROL ARM BROKEN. REPLACED.									
3213		CESSNA 180C				BOLTS AN625A	BROKEN LT MLG AXLE		10/21/95 CA971106001
(CAN) DURING A HARD LANDING, THE LEFT MAIN GEAR AXLE SEPARATED FROM THE LANDING GEAR. TWO OF THE FOUR BOLTS SECURING THE AXLE ON THE GEAR HAD BROKE AND TWO WERE STRIPPED.									
7120		CESSNA 180J	CONT O470K			MOUNT 751127	CRACKED LT TOP	5669	11/10/93 CA931129102
(CAN) LT TOP DIAGONAL TUBE CRACKED, AS IF CUT WITH A TUBE CUTTER. A PREVIOUS HORIZONTAL TUBE SPLICE MAY HAVE LED TO EVENTUAL FAILURE.									

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3213		CESSNA 182P			07416302	MAIN GEAR 07416302	BROKEN RT MLG	1616	2/15/97 CA970306001
(CAN) ON LANDING, RT GEAR CONTACTED SNOW BANK AND SEPARATED AT AXLE FITTING. BROKEN EAR SHOWED SIGNS OF CORROSION ABOUT 1/3 DIAMETER AT INBOARD AXLE FITTING. REPLACED.									
2710		CESSNA A185E				CABLE 5115113	WORN AILERON	13113	11/18/93 CA931125001
(CAN) AILERON CONTROL CABLE FOUND WORN. VERY DIFFICULT TO SEE.									
2710		CESSNA A185F				CABLE 5115	FRAYED AILERON RT	6181	11/19/93 CA931203002
(CAN) RT DIRECT AILERON CABLE FOUND WORN AND FRAYED AT WING ROOT WHERE CABLE TRAVELS OVER PULLEY.									
2750		CESSNA A185E				CABLE 5115	WORN FLAP		11/18/93 CA931206001
(CAN) ALL FLAP CABLES REPLACED AS THEY WERE WORN, P/N'S 0510105-121, 122, 163, 164, 326, AND 324.									
3211		CESSNA A185E				BRACKET 71349561	CORRODED LDG GEAR	6769	12/7/93 CA931207015
(CAN) AIRCRAFT PURCHASED FROM SALVAGE OPERATOR FOR RESTORATION. LANDING GEAR BULKHEAD CASTINGS FOUND BADLY CORRODED.									
3211		CESSNA A185F				SUPPORT BRACKET 071349562	CRACKED MLG	1202	6/26/97 CA970707006
(CAN) PILOT NOTED CLICK NOISE FROM MAIN LANDING GEAR. RIGHT HAND OUTBOARD SUPPORT BRACKET FOUND CRACKED VERTICALLY ALLOWING LEG MOVEMENT. SUBMITTER SAYS THIS IS THE SECOND CASTING REPLACED. NOTED ALSO THAT THE AIRCRAFT IS USED ON UNIMPROVED LANDING STRIPS.									
3213		CESSNA A185F				GEAR LEG 07410016	BROKEN MLG SKI	7672	4/3/97 CA970520001
(CAN) ON TAKEOFF, THE LEG OF THE SKI EQUIPPED AIRCRAFT BROKE. POSSIBLY PREVIOUSLY CRACKED. REPLACED.									
5313		CESSNA A185F				LONGERON 07120486	CRACKED FUSELAGE	5017	4/26/97 CA970513006
(CAN) .5 INCH CRACK AT TOP END OF RT REINFORCEMENT LONGERON, DUE TO CORROSION. RT BRACKETS 07123021 AND 2 AND REINFORCEMENTS 0712304-15 AND 16 REPLACED. AIRCRAFT TT: 5,017 HOURS.									
5753		CESSNA A185F				FLAP TRACK 1221115	BROKEN LT INNER		11/19/93 CA931201012
(CAN) DOUBLER HOLDING FLAP TRACK AT FORWARD END OF LOWER SLOT CRACKED ALLOWING TRACK TO MOVE, CAUSING SKIN TO CRACK AT STIFFENER AND SOMETIMES STIFFENER TO CRACK. THIS CAUSES FLAP OBSTRUCTION. SUBMITTER NOTES 2 OTHER AIRCRAFT WITH SIMILAR PROBLEMS.									
2750		CESSNA P206D				TAB S2951	BROKEN FLAPS		7/5/93 CA931109102
(CAN) FLAP CABLE SEIZED AND BROKE TAB ON PUSH-PULL CONTROL, JAMMING FLAP MECHANISM IN DOWN POSITION.									
2821		CESSNA U206G				SCREEN 152675	BLOCKED FUEL OUTLET RT		11/5/93 CA931115203
(CAN) PILOT COMPLAINED THAT ENGINE QUIT IN-FLIGHT. IT RESTARTED WHEN FUEL TANK SWITCHED AND NOSE LOWERED. THIS IS SECOND OCCURRENCE IN 3 MONTHS. BOTH TIMES AIRCRAFT IN CLIMB, AND RT TANK SELECTED WITH 1/4 FUEL INDICATED. FOUND RT AFT FUEL OUTLET SCREEN 80 TO 90 PERCENT PLUGGED WITH FUEL TANK SEALING COMPOUND. AREA HAD A FUEL LEAK A FEW MONTHS PREVIOUS AND HAD BEEN SEALED. NO SCREEN CLAMP WAS INSTALLED AND EXCESS SEALANT HELD SCREEN IN PLACE. EXCESS SEALANT OOZED INTO SCREEN BLOCKING OUTLET.									

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3246		CESSNA U206F			EDO 5023430	BUMPER ATTACH	MISSING LEFT FLOAT		10/25/93 CA931115006
(CAN) AIRCRAFT TIED TO A 'U' SHAPED DOCK. LEFT FRONT FLOAT BUMPER RUBBED ON DOCK AND ITS ATTACHMENT WAS APPARENTLY DAMAGED. DURING TAXI, IT FELL OFF AND WATER FILLED FLOAT THROUGH THE OPENING. WHEN PILOT NOTICED SAG HE TRIED TO RAISE NOSE BUT AIRCRAFT CAPSIZED.									
3710		CESSNA U206G	CONT IO520F			VACUUM PUMP 212CW	SEIZED SHAFT	282	11/5/93 CA931116006
(CAN) VACUUM PUMP (REBUILT) SEIZED AFTER ONLY TWO MONTHS AND 281.8 HOURS OF OPERATION.									
5540		CESSNA 208B				BEARING MS244624	WORN RUDDER	7677	12/3/96 CA970702010
(CAN) RUDDER NOTICED TO BE RESTING LOWER THAN NORMAL. INSPECTION FOUND THE UPPER BEARING HAD BECOME SEVERELY WORN. ALL BEARINGS REPLACED. AIRCRAF TT: 8,200 HOURS.									
5720		CESSNA 210F	CONT IO520A			DOUBLERS 1214223	CRACKED RT LT WELLS	2826	5/7/97 CA970520007
(CAN) CRACKS FOUND ON AFT GEAR WELL BULKHEAD DOUBLERS LT AND RT WELLS. CRACKS EXTEND AROUND BOLT HOLES AND RUN VERTICAL ON DOUBLERS. DOUBLERS REPLACED.									
3260		CESSNA 310R				MICROSWITCH JE1	FAULTY LG POSITION IND		4/2/96 AU960428
(AUS) RH MAIN LANDING GEAR DOWNLOCK MICROSWITCH ACTUATOR LEAF BROKEN OFF									
3246		CESSNA 337B	CONT IO360C		CLEVELAND	WHEEL 1613	CRACKED LT MLG	4055	11/12/93 CA931203502
(CAN) LT MAIN TIRE WENT FLAT DURING TAXI. INSPECTION FOUND A CRACK ABOUT 25 PERCENT OF INNER CIRCUMFERENCE OF INNER HALF OF WHEEL. A SMALL HOLE HAD DEVELOPED IN TUBE ALLOWING PRESSURE LOSS. CRACK LIKELY NEW AND PROPAGATED BY EXCESSIVE HEAT FROM BRAKE DISC.									
2730		CESSNA 340CESSNA	CONT TSIO520N			BOLT AN414	BENT ELEV BELLCRANK		11/22/93 CA931124101
(CAN) PIVOT BOLT ON ELEVATOR BELLCRANK FOUND BENT. POSSIBLY CAUSED BY WIND GUSTS OR PROP WASH. PIVOT BOLT BLOCK ALSO DAMAGED.									
2823		CESSNA 421A				FUEL SELECTOR 515746	BROKEN RT FUEL SELECT		10/20/93 CA931026201
(CAN) WHEN PILOT ATTEMPTED TO SELECT RT FUEL TANK, SELECTOR HANDLE ROTATED, BUT DID NOT ENGAGE. 3 TEETH FOUND BROKEN ON LARGE GEAR. THIS GEAR IS PLASTIC AND HAS BEEN REPLACED IN LATER MODELS BY A METAL ONLY.									
2120		CESSNA 550	PWA JT15D4			CLAMP OS2M4S	LOOSE ACM DUCT	8909	10/11/93 CA931020101
(CAN) HOSE CLAMP IN AIR CONDITIONING SYSTEM CAME LOOSE ON ACM TO DUCT ASSY - CABIN AIR SUPPLY CREATING LARGE PRESSURIZATION LEAK. PART TC: 12,209.									
2121		CESSNA 550	PWA JT15D4			MOTOR BC61A9012 MB38A	SEIZED CABIN BLOWER	3366	10/27/93 CA931108103
(CAN) BEARING IN MOTOR OF CABIN OVERHEAD BLOWER ASSY SEIZED AND OVERHEATED MOTOR GIVING OFF A SMOKE SMELL THROUGHOUT COCKPIT AND CABIN. PART TC: 5,129.									

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2435		CESSNA 550	PWA JT15D4			CAPACITOR ASSY 62581038	BURNED L/H GENERATOR	2245	11/6/97 CA971117011
(CAN) THE LT GENERATOR WAS RESET TWICE TO BRING IT BACK ON LINE AND THE AIRCRAFT DEPARTED. MAINTENANCE PERSONNEL RAN THE ENGINE TO CHECK FOR GENERATOR PROBLEMS, BUT EVERYTHING WAS NORMAL. AFTER REMOVING THE LT LOWER ENGINE COWLING TO DO A VISUAL, IT WAS NOTICED THAT THE CAPACITOR ASSY WAS BADLY BURNED INCLUDING SOME WIRING IN THE SAME VICINITY. ONE LEAD WAS FOUND BURNED THROUGH AND BROKEN WHICH OPENED THE CIRCUIT. THIS IS THE SECOND OCCURRENCE ON THIS FLEET.									
2731		CESSNA 550				TRIM ACTUATOR 511523128EX	FAULTY ELEV		8/24/96 CA960924015
(CAN) AN EXCHANGE ELEVATOR TRIM ACTUATOR WAS RECEIVED FROM CESSNA TO FACILITATE SB 550-27-17. THE UNIT S/N 056-28 WAS RECEIVED AND APPEARED TO BE SERVICEABLE BUT AFTER INSTALLATION, RIGGING, AND TENSIONING, THERE WAS A METALLIC GRINDING NOISE COMING FROM INSIDE THE UNIT. FOUND THE CABLE WAS WOUND AROUND THE GUARD INTERNALLY. THIS CAUSED THE SUBMITTER EXTRA TIME AND RESOURCES TO IDENTIFY A PROBLEM THAT SHOULD HAVE BEEN CAUGHT AT R AND O.									
5210		CESSNA 550	PWA JT15D4			SEAL	MALFUNCTIONED CABIN DOOR		9/4/96 CA960923003
(CAN) DURING FLIGHT AT 5,000 FEET ASL, FLIGHT CREW NOTICED A GRADUAL LOSS OF CABIN PRESSURIZATION UNTIL THE AIRCRAFT CABIN ALTITUDE MATCHED AIRCRAFT ALTITUDE. AIRCRAFT RETURNED TO BASE UNPRESSURIZED. AIRCRAFT PRESSURIZATION SYSTEM GROUND CHECKED WITHOUT FAULTS. DOOR SEAL LINE PURGED AS A PRECAUTION. AIRCRAFT TT: 2,277.									
5210		CESSNA 550	PWA JT15D4			VALVE	FAILED DOOR SEAL		7/8/96 CA960923002
(CAN) AIRCRAFT EN ROUTE WHEN PRESSURE BEGAN DECREASING AT UNCONTROLLABLE RATE. OXYGEN MASKS DEPLOYED AND DONNED, AIRCRAFT LANDED SAFELY AT ALTERNATE SITE. MAINTENANCE FOUND MOISTURE TRAPPED IN DOOR SEAL AIR SUPPLY LINE. PURGED AIR USING LT ENGINE TO SUPPLY BLEED AIR AND MANUALLY ACTIVATING PLUNGER TO ALLOW AIR TO FLOW FREELY THROUGH SEAL. AIRCRAFT TT: 2,277 HOURS.									
5210		CESSNA 550	PWA JT15D4			DOOR SEAL	LEAKING CABIN		6/19/96 CA960923026
(CAN) PILOT REQUESTED RAPID DESCENT TO 10,000 FEET AND ADVERSION TO ALTERNATE LANDING SITE. PILOT REPORTED DOOR SEAL LEAKING AND A SLOW DEPRESSURIZATION. RUN-UP RT ENGINE AND WITH DOOR OPENED, DEPRESSED THE PLUNGER FOR THE DOOR SEAL VALVE AND ALLOWED THE SYSTEM TO PURGE OFF WATER WHICH WAS FOUND IN THE SYSTEM. AIRCRAFT TT: 2,198 HOURS.									
2710		CESSNA 501				QUADRANT 55653813	CRACKED LT AILERON	15055	7/17/96 CA960715004
(CAN) DURING ROUTINE INSPECTION, THE LT AILERON QUADRANT WAS SUSPECTED TO BE CRACKED. AS A PRECAUTION, THE RT QUADRANT WAS INSPECTED AS WELL. THE LT QUADRANT WAS REPLACED AND RT WAS CHECKED BY EDDY CURRENT AND FOUND TO BE SERVICEABLE. PART TC: 18,996.									
2810		DHAV DHC2MK1				FUEL TANK C2PT2A	CRACKED CENTER	11995	11/9/93 CA931116004
(CAN) CENTER FUEL TANK LEAKING. ONE INCH CRACK ON TOP OF TANK ADJACENT TO METAL HOLD DOWN STRAP.									
3213		DHAV DHC3				PIN H8363	SHEARED OLEO		10/26/93 CA931109104
(CAN) AFTER TAKEOFF, THE LT MAIN OLEO SEPARATED. GEAR CYCLED ON THE AMPHIBIOUS FLOATS TO GET GEAR UP INDICATION. ALSO, WITH LANDING GEAR DOWN, INDICATION WAS POSITIVE ON LANDING. THE WHEEL RETRACTED AND THE FLOAT WAS DAMAGED. THE RETAINING PINS (4) INSIDE THE OLEO SHEARED AND ALLOWED THE PISTON TO SEPARATE FROM THE HOUSING SPLITTING THE STRUT IN HALF.									
3246		DHAV DHC3				TIE BAR	CORRODED OUTER END		11/4/93 CA931108104
(CAN) NEW TIE BAR INSTALLED ON 8 MAY 89 DUE TO CORROSION BETWEEN BUSHING AND ALUMINUM ALLOY BAR. SUSPECT DISSIMILAR METAL CORROSION POSSIBLE HEAT TREAT OR CHEMICAL TREATMENT. NEW BAR INSTALLED 24 OCT. 93.									

\*\*\*\*\* DENOTES SIGNIFICANT OCCURRENCE

## INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT (cont'd)

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7120		DHAV DHC3	PWA R1340*			ENGINE MOUNT C3EM2A	CRACKED UPPER LT	99	6/14/93 CA930624301
(CAN) ENGINE MOUNT SUPPORT RING CRACKED BETWEEN COWL SUPPORT BRACKET AND LT SUPPORT 'V' RUNNING HALF WAY AROUND TUBE. SB 3/99 CARRIED OUT 99 HRS PRIOR.									
2410		DHAV DHC6300	PWA PT6A27		WOODWARD	CSD 8214	FAULTY PIVOT BEARING	1755	10/9/93 CA931029410
(CAN) DURING INSPECTION OF ENGINE CHIP DETECTOR, SMALL BALL BEARINGS WERE FOUND. BEARINGS WERE FOUND TO HAVE COME FROM THE CONSTANT SPEED GOVERNOR INTERNAL LEVER PIVOT BEARING. GOVERNOR WAS RETURNED TO THE OVERHAUL FACILITY. PART TC: 2,596.									
2410		DHAV DHC6300	PWA PT6A27		WOODWARD	CSD 8214	FAULTY PIVOT BEARING	1750	10/9/93 CA931029411
(CAN) DURING INSPECTION OF ENGINE CHIP DETECTOR, SMALL METAL BALL BEARINGS WERE FOUND. BEARINGS WERE FOUND TO HAVE COME FROM THE CONSTANT SPEED GOVERNOR NF LEVER PIVOT BEARING. GOVERNOR WAS RETURNED TO OVERHAUL FACILITY. PART TC: 2,977.									
2710		DHAV DHC6300	PWA PT6A27			BEARING	STICKING AUTOPILOT		11/24/93 CA931126005
(CAN) DEFECT FOUND DURING FUNCTION CHECK OF FLIGHT CONTROLS EXCESSIVE BEARING NOISE AND SLIGHT STICKING OF CONTROL COLUMN DURING AILERON MOVEMENT.									
2720		DHAV DHC6300	PWA PT6A27			RUDDER STOP C6FS18379	DEBONDED LT STOP		10/27/93 CA931123502
(CAN) FOLLOWING TAKEOFF IN GUSTING CROSSWIND, THE PILOT NOTICED RUDDER INTERFERENCE AT THE RUDDER PEDAL. LT RUDDER STOP HAD DEBONDED RESULTING IN LOSS OF THE CUSHION STOP AND ALLOWING THE RUDDER TO TRAVEL ROUGHLY AN EXTRA INCH TOWARDS THE LT STOP. THIS ALLOWED A FAIRING TO CONTACT THE FORWARD AREA OF THE RUDDER VERTICAL FIN.									
5270		DHAV DHC6200	PWA PT6A20			SWITCH MS25261	ADJUSTMENT DOOR UNLOCK		11/1/93 CA931118002
(CAN) DOOR UNLOCK CAUTION LIGHT CAME ON AFTER TAKEOFF - ADJUSTED. ACFT TT: 5,270 HOURS.									
5311		DHAV DHC6100	PWA PT6A20			FRAME C6PSM2528S12	CRACKED STA 239.88		6/8/93 CA931124002
(CAN) RIGHT FRAME AT STA 239.88 CRACKED AT 3 PLACES AND CORRODED AT BOTTOM ATTACH POINT. CRACKS AT RIVET LINE. AIRCRAFT TT: 5,638 HOURS.									
5511		DHAV DHC6300	PWA PT6A27			SPAR	CRACKED HORIZ STAB	28711	9/17/93 CA931029409
(CAN) HORIZONTAL STAB CENTERE FRONT SPAR CRACKED. PART TC: 42,588.									
2820		DIAMON DA20A1				FUEL HOSE FP160B01BXXC0360	BENT FUEL PUMP SWAGE		10/31/97 CA971106004
(CAN) BRACKET AT ENGINE DRIVEN PUMP OF FUEL SUPPLY LINE FOUND BENT AND WILL NOT FIT THE AIRCRAFT. SUBMITTER SCRAPPED HOSES.									
2820		DIAMON DA20A1				FUEL LINE EP160B01BXXC0360	SWOLLEN FUEL PUMP SWAGE		10/30/97 CA971106003
(CAN) EIGHT INCH HOSE RECEIVED FROM MANUFACTURER NEW. FLOW TEST FOUND TO HAVE RESTRICTIONS CAUSING A FAN PATTERN IN THE FLOW.									
3250		MOONEY M20K				LINK F3414MPB	BROKEN NOSE GEAR STEERG	1308	10/5/93 CA931104501
(CAN) ON INSPECTION, FOUND NOSE GEAR STEERING LINK P/N F3414MPB AND P/N REM 3-42 BENT AND BROKEN. ALSO, NOSE GEAR ASSY BENT. SUSPECT EXCEEDED TOWING STEERING LIMITS.									

\*\*\*\*\* DENOTES SIGNIFICANT OCCURRENCE

## INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT (cont'd)

4/26/98 To 5/2/98 ISSUE: 98-18 ZAC-327

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2610		MTSBSI MU2B35				INSULATOR	MISSING BULKHEAD CONNECT	9128	6/25/97 CA970702001
(CAN) ON LANDING, THE LEFT ENGINE FIRE WARNING LIGHT ILLUMINATED. INVESTGATION FOUND NO FIRE BUT REVEALED A MISSING INSULATOR INSIDE THE BULKHEAD CONNECTOR. SUBMITTER BELIEVES IT PROBABLY FELL OUT DURING ENGINE INSTALLATION 34 HOURS EARLIER.									
5730		PILATS PC12				SKIN	DAMAGED LT & RT WING		3/23/98 CA980331009
(CAN) AIRCRAFT CRUISING AT FL 280 FOR APPROX 4.5 HOURS. ON DESCENT AT 2,500 FEET A LOUD BANG WAS HEARD. THE PILOT NOTICED BOTH TOP SURFACES OF THE WINGS WERE CAVED IN. LANDING SUCCESSFULLY CARRIED OUT. GROUND INSPECTION REVEALED APPROX A 2 INCH DEPRESSION ON THE SKINS. A MANDATORY SB 28-003 HAD BEEN CARRIED OUT IN DEC 1997. FUEL WAS NOTICED LEAKING FROM POPPED RIVETS. FUEL VENT SYSTEM SEEMED OK ON GROUND. AD SUBSEQUENTLY RELEASED TO DIRECT THE DRILLING OF SMALL HOLES IN THE FILLER CAPS (98-086).									
7602		PIPER PA60600				CABLE 6000251	BROKEN MIXTURE	1710	6/13/97 CA970709004
(CAN) DURING INSPECTION, THE RIGHT HAND MIXTURE CONTROL CABLE WAS FOUND TO HAVE A BROKEN GUIDE TUBE JUST BEFORE THE ROD END AT THE FUEL INJECTOR. THE SWIVEL CRIMP HAD LET GO EXPOSING THE INNER CABLE AND ALLOWING IT TO COME OUT OF ITS GUIDE TUBE. CABLE REPLACED.									
2740		PIPER PA23250				SPRING 3314902	WORN STAB BUNGEE		4/28/97 CA970506016
(CAN) STABILATOR BUNGEE SPRING WORN CORRODED AND WEAK. WIRE DIAMETER OF LOOP FLATTENED WHERE LOOP CONTACT IS MADE WITH HOOKING HOLE. SPRING WIRE REDUCED BY 50 PERCENT. LOOP AT OTHER END SHOWS SIGNS OF HARDENING AND SURFACE CORROSION. REPLACED.									
3260		PIPER PA23250				CONNECTOR	DISCONNECTED GEAR SWITCH	5997	6/7/97 CA970612013
(CAN) AIRCRAFT WAS DESCENDING AND SELECTED GEAR, BUT DID NOT GET A DOWN AND LOCKED SIGNAL. VERIFICATION WAS CARRIED OUT FOR DOWN AND LOCKED AND AIRCRAFT LANDED. INSPECTION FOUND THE CONNECTOR WIRE BUNDLE DISCONNECTED. NO APPARENT REASON.									
5330		PIPER PA23250				RUBBER EXTRUSION 1974500	MISSING WING/FUSELAGE	6913	4/17/97 CA970505015
(CAN) FRETTING WHERE WING TO FUSELAGE FAIRING ATTACHES TO WING AND FUSELAGE, NO RUBBER CHAFING STRIPS INSTALLED. STRIPS INSTALLED. PART TT: 6,957 HOURS.									
7810		PIPER PA23250				EXHAUST STACK 3342002	BROKEN CONNECTOR	6971	6/11/97 CA970618022
(CAN) INSPECTION FOUND THE EXHAUST CROSSOVER PIPE BROKEN AT THE SHROUD. ALSO, THE ALTERNATE AIR SPRING DOOR MISSING. HINGE BROKEN. DOOR FOUND IN BOTTOM OF AIR BOX.									
3213		PIPER PA28140	LYC O320E2A			GEAR LEG 653194	CRACKED TORQUE LINK BOSS		10/22/93 CA931119601
(CAN) DURING INSPECTION BOTH MAIN GEAR LEGS FOUND CRACKED AT TORQUE LINK ATTACHMENT BOSS. SERVICE LETTER 760 REFERS.									
3260		PIPER PA28R200	LYC IO360C1C			WIRE	BROKEN MLG INDICATION		10/15/93 CA931201011
(CAN) BROKEN WIRE ON LANDING GEAR POSITION INDICATOR. NO INDICATION.									
5531		PIPER PA28160	LYC O320B2B			RIBS 6697200	CORRODED INTERNALV STAB	4509	6/7/97 CA970618001
(CAN) VERTICAL STABILIZER REMOVED FOR PAINT STRIPPING. THE TWO RIBS P/N 66972-00 AND 63506-00 WERE FOUND CORRODED AND NEEDED REPLACING. AIRCRAFT TT: 4,509 HOURS.									

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## INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT (cont'd)

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5730		PIPER PA28140	LYC O320E3D		6206200	SKIN ASSY 62612	CRACKED WING WALK	4886	10/12/93 CA931029403
(CAN) WING WALK VERY SPONGY. PART 62061-02 CRACKED ALONG CORRUGATIONS. PART 62063-00 ALSO CRACKED.									
5730		PIPER PA28140	LYC O320E3D			PAN 6262	CRACKED WING WALK	8029	11/30/93 CA931207002
(CAN) WING WALK VERY SPONGY. PAN 62062-00, PART OF 62061-02 ASSY, CRACKED ALONG CORRUGATIONS. AIRCRAFT TT: 9,017 HOURS.									
2510		PIPER PA31	LYC			SEAT SPRING 1933600	WEAK CAPTS SEAT	7210	7/19/97 CA970728020
(CAN) ON TAKEOFF ROLL, THE PILOT'S SEAT SLIPPED REARWARD. INVESTIGATION FOUND THE SPRINGS HOLDING THE LOCKING PINS INTO POSITION TO BE WEAK. SUBMITTER RECOMMENDS REGULAR INSPECTION.									
2730		PIPER PA31350				SPRING 71056002	BROKEN ELEV	5728	2/24/97 CA970306007
(CAN) ELEVATOR CONTROL DOWN SPRING DISCONNECTED AND BROKEN IN CENTER. REPLACED.									
2822		PIPER PA31350			ROMEC RG9080J4A	FUEL PUMP RG9080J4A	FAILED ENGINE	5/23/97 65	CA970603026
(CAN) PILOT REPORTED ENGINE QUIT AT LOW RPM WITH A/C FUEL BOOSTER PUMP C/B PULLED AND EMERGENCY PUMP OFF. GROUND RUN CONFIRMED PRESSURE DROP FROM 40 PSI TO APPROX 35 PSI, FLUCTUATED BETWEEN 800 AND 1000 RPM ON ENGINE, BELOW ARO LINE, WITH BOOSTER PUMP OFF AND UNSTABLE AT 42 TO 44 PSI WITH BOOSTER PUMP ON. NEW PUMP INSTALLED, GROUND RUN SERVICEABLE.									
3220		PIPER PA31				HOUSING ASSY 4273	CRACKED STEERING LT STOP	11/23/93	CA931123501
(CAN) NOSE GEAR TOWING STOP LIMIT, WHEN EXCEEDED, OVERSTRESSES STRUT HOUSING ASSY CAUSING CRACKS.									
3230		PIPER PA31				FORK 41789000	BROKEN RT MLG	3/27/97	CA970408015
(CAN) RIGHT MAIN LANDING GEAR REMAINED DOWN AND LOCKED ON RETRACTION. RT MLG LOCK ROD FORK BROKE POSSIBLY ON UP SELECTION. REPLACED.									
3242		PIPER PA31350			CLEVELAND 19983	SHIM 6830	MISSING BRAKE	5/8/97	CA970520014
(CAN) WHEELS AND BRAKES PREVIOUSLY MODIFIED PER STC AND DWGS. DUE FOR 100 HR INSP. RT BRAKE FOUND LEAKING, O-RINGS. RT SIDE BOTH BRAKES O-RINGS FOUND FRIED ONTO CASING AND STICKING TO PISTONS. SHIM PIPER 762421, CLEVELAND 68-30, MISSING ON ONE BRAKE AND HOME MADE METAL SHIMS FOUND ON TWO LININGS AND MISSING ON THIRD. LT, BOTH SHIMS MISSING, O-RINGS HEATED. NO LOCK WASHERS ON BOLTS. REPLACED.									
5210		PIPER PA31				NUT CHANNEL 404835	DETACHED DOOR AFT CORNER	7130	6/6/97 CA970612012
(CAN) THE UPPER PORTION OF THE REAR DOOR OPENED IN FLIGHT AFTER STARTING DESCENT. THE DOORS WERE POSITIVELY CLOSED PRIOR TO START OF FLIGHT. INSPECTION FOUND THE NUT CHANNEL TO HAVE FALLEN OFF THE DOOR FRAME ALLOWING THE DOOR TO OPEN PART WAY. AIRCRAFT TT: 7,240 HOURS.									
5510		PIPER PA31350				VORTEX GEN 1001	MISSING HORIZ STAB	957	5/12/97 CA970523012
(CAN) VORTEX GEN MISSING ON TOP OF WING STN 174.5 AND BOTTOM OF RT STAB AT STN BL 9 8.25. SUBMITTER STATED POSSIBLY LOOSENED DURING WASHING AND FELL OFF DURING TAXI OR FLIGHT. VG ON STAB IS PARTLY ON CORNER OF TRIM PANEL. AIRCRAFT TT: 10,273 HOURS.									
5521		PIPER PA31350				SPARS 5423224	CRACKED ELEVATORS	8934	6/21/97 CA970709005
(CAN) COMPLETED SB 998 AND FOUND BOTH SPARS CRACKED. REPAIRS AND REPLACEMENTS COMPLETED.									

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## INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT (cont'd)

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5521		PIPER PA31350				SPAR 5423224	CRACKED ELEVATORS	7604	6/20/97 CA970703001
(CAN) WHILE COMPLYING WITH PIPER SB 998, BOTH ELEVATOR SPARS WERE FOUND CRACKED. REPAIRS COMPLETED. AIRCRAFT TT: 7,498 HOURS.									
8120		PIPER PA31310	LYC TIO540A2C			TURBOCHARGER 466192	SEIZED NR 2 ENGINE	1156	11/12/93 CA931201201
(CAN) AFTER ROUTINE PREFLIGHT AND STARTUP - TAKEOFF WAS INITIATED. DURING TAKEOFF ROLL, THE AIRCRAFT BEGAN YAWING TO THE RIGHT. CAUSE, LOSS OF POWER, MANIFOLD PRESSURE. TAKEOFF ABORTED AND AIRCRAFT TAXIED BACK TO RAMP WITH NR 2 ENGINE SHUTDOWN. TURBOCHARGER SEIZED DUE TO BEARING FAILURE.									
3230		PIPER PA32RT300	LYC IO540K1G5			ROD END BEARING 357972	BROKEN NOSE RETRACT CYL	2016	11/24/93 CA931207010
(CAN) NOSE LANDING GEAR EXTENDED ON ITS OWN IN CRUISE. GEAR RECYCLED NO EFFECT. ROD END FAILED ON NOSE GEAR RETRACT CYLINDER. FAILED IN THREAD AREA POSSIBLY DUE TO MISRIGGING.									
5210		PIPER PA32R301				DOOR 9699506	DELAMINATED LOWER LATCH	366	5/22/97 CA970530008
(CAN) AFT CABIN DOOR SKIN DELAMINATED IN AREA OF FWD LOWER LATCH. REPAIRED. AIRCRAFT TT: 266 HOURS.									
7112		PIPER PA32R301	LYC			BAFFLE	WORN ENGINE	366	5/22/97 CA970605007
(CAN) GOVERNOR ROD END BOLT RUBBING AGAINST FWD ENGINE BAFFLE CAUSING GROOVE GREATER THAN 50 PERCENT OF THE THICKNESS OF THE BAFFLE. STATISTICALLY, THE BAFFLE IS OK BUT IN FLIGHT UNDER AIR LOADS THE BAFFLE MOVES AGAINST THE BOLT CAUSING RUBBING AGAINST THE BAFFLE. BAFFLE SECURED.									
3222		PIPER PA34200				TRUNNION 9572300	BROKEN NLG LUG	5982	6/20/97 CA970702024
(CAN) APPROXIMATELY 1.5 INCH SECTION OF THE TRUNNION LUG ON THE RIGHT HAND SIDE BROKE OFF. THIS ALLOWED THE NOSE GEAR TO TRACK OUT OF POSITION BY APPROX 15 DEGREES.									
3230		PIPER PA34200			95713	LINK 786676	WORN NLG BUSHINGS	349	8/9/93 CA931025201
(CAN) NOSE LANDING GEAR COLLAPSED ON LANDING. THREE GREEN LIGHTS SHOWING. SEVERAL BUSHINGS EXCESSIVELY WORN. SIMILAR OCCURRENCE ONE YEAR PREVIOUSLY. PIVOT BOLTS, BUSHINGS HAD BEEN REPLACED THEN.									
3230		PIPER PA34200				SPRING 9617800	DETACHED NLG		5/26/97 CA970603027
(CAN) NLG LIGHT WOULD NOT COME ON TO INDICATE DOWN AND LOCKED. FLY-BY INDICATED NLG IN LANDING POSITION. A/C LANDED AND NOSE GEAR COLLAPSED SHORTLY AFTER TOUCHDOWN. MOST FLUID LOST DUE TO PERFORATED PRESSURE LINE NR 95153-43 AFTER GEAR SELECTED UP. EMERGENCY GEAR DOWN MECHANISM FAILED TO LOCK THE GEAR DOWN DUE TO SPRING NR 96178-00 WAS OFF ITS HOOKS. SPRING RECONNECTED AND LINE REPLACED.									
3310		PIPER PA42				WIRE COAXIAL 65346	SHORTED COPILT EYEBRWLIT	5185	10/28/93 CA931112203
(CAN) IN CRUISE AT NIGHT, PILOT NOTICED A GLOW AND THEN SMOKE UNDER CO-PILOT'S EYEBROW PANEL. EMERGENCY DESCENT INITIATED. POWER TURNED OFF AND CIRCUIT BREAKER PULLED, THEN POWER RE-ESTABLISHED SELECTIVELY. CO-AXIAL CABLE SHORTED OUT AT GROUND FITTINGS. THIS COAX RUNS FROM POWER SUPPLY TO FLUORESCENT PANEL LIGHTS.									
5730		PIPER PA46310P				SKIN	SMOKING RIVETS UPPER WING	1722	5/15/97 CA970707015
(CAN) FOUND UPPER AND LOWER WING SURFACE SPAR RIVETS SMOKING. SUBMITTER STATES THAT A SIMILAR PROBLEM WAS ADDRESSED IN PIPER SB 796A. AIRCRAFT TT: 1,501 HOURS.									

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2750		ZLIN				BOLT	BENT	1451	9/2/97
		Z242L			Z4243430000	677ONL312014	FLAP CONTROL		CA970905001
(CAN) DISASSEMBLY OF THE FLAP CONTROL BELLCRANK AT THE 1,500 HR INSPECTION FOUND THE BOLT ATTACHING THE FLAP CONTROL CABLE TO THE BELLCRANK WAS BENT AT THE MIDWAY POINT. THE OTHER WING BELLCRANK BOLT WAS FOUND IN THE SAME CONDITION.									

(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT)

**INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS****4/26/98 - 5/2/98 ISSUE: 98-18 ZAC-327**

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7314		AEROSP AS355F2	ALLSN 250C20R2			UNION 355A523182	CRACKED FUEL PUMP	1406	9/13/93 CA931020001
(CAN) ENGINE RELIGHT TWICE IN 10 SECONDS. ACCOMPANIED BY A TORQUE SURGE. INVESTIGATION REVEALED MAIN FUEL "IN" UNION ON ENGINE DRIVEN FUEL PUMP CRACKED IN 4 PLACES.									
5302		BELL 204B				BEAM	CRACKED TAILBOOM		8/21/97 CA970902013
(CAN) TAIL BOOM ATTACHMENT POINT T-CAP BEAM FOUND CRACKED. SOME RIVETS ALSO SHEARED. CRACK WAS ALONG TWO HI-SHEAR RIVET HOLES. AIRCRAFT TT: 16,040 HOURS.									
2910		BELL 205A1	LYC T5317A			TUBE 205076310001	CHAFED HYD SYS		6/19/97 CA970716001
(CAN) AIRCRAFT LOST HYDRAULIC POWER. HOSE WAS CLAMPED TO A FLEX HOSE ASSY AND THE RELATIVE MOVEMENT BETWEEN THE TWO ALLOWED THE TUBE TO CHAFE. IN-FLIGHT, THE MASTER CAUTION SHOWED LOW HYDRAULIC FLUID AND THE CREW COULD ALSO SMELL FLUID THAT WAS LEAKING FROM THE CHAFED TUBE. MERGECY LANDING.									
2140		BELL 206B	ALLSN 250C20			BLOWER MOTOR C241500E	SHEARED MOUNTING HOLE		5/28/97 CA970626010
(CAN) SCREWS SHEARED OFF IN MOUNTING BRACKET.									
2820		BELL 206L1	ALLSN 250C28B		206064613001	SPRING A1551	MISSING RT FUEL CK VALVE		7/30/97 CA970807044
(CAN) AIRCRAFT HAD LOW FUEL PRESSURE LIGHT ON. WHEN RIGHT HAND CHECK VALVE REMOVED, NOTICED THAT SPRING WAS MISSING. SPRING FOUND IN FUEL CELL.									
2841		BELL 206B	ALLSN 250C20			INDICATOR 206075189001	DEFECTIVE FUEL QTY		5/15/97 CA970626008
(CAN) FUEL QUANTITY INDICATOR INSTALLED AND FOUND OUT OF LIMITS FOR CALIBRATION.									
2842		BELL 206B	ALLSN 250C20			SENSOR EA4703587	FAILED FUEL TANK	91	8/13/97 CA970904027
(CAN) UPPER FUEL TANK SENDING UNIT STICKING.									
2842		BELL 206B	ALLSN 250C20			FUEL SENSOR EA47083588	INACCURATE FUEL QTY		6/20/97 CA970626013
(CAN) FUEL QUANTITY DROPPED TO 10 GALLONS AND HELD THEN INDICATED ZERO GALLONS.									
3211		BELL 206B3	ALLSN 250C20B			CROSSTUBE 2651197	BROKEN AFT		11/16/93 CA931125301
(CAN) WHILE AIRCRAFT WAS BEING TOWED, AFT CROSS TUBE BROKE OUTBOARD OF THE RT AIRFRAME ATTACHMENT POINT, AT A RIVET HOLE ATTACHING THE SCUFF PLATE TO THE CROSS TUBE. CIRCUMFERENTIAL CRACKS STARTED AT THE RIVET HOLE AND PROGRESSED UNTIL THE TUBE BROKE. THERE IS NO DETAILED INSPECTION FOR THIS AREA.									
3213		BELL 206L	ALLSN 250C20			CROSSTUBE 26531921	CRACKED SADDLE RIVET		11/5/93 CA931119602
(CAN) DURING ANNUAL INSPECTION OF TUBES, CRACKS WERE FOUND AT BOTH SADDLE RIVET AREAS. CRACK ORIGINATE FROM RIVET HOLES.									
3422		BELL 206B				DIRECTIONAL GYRO 200DC	BURNT COCKPIT		5/24/97 CA970618013
(CAN) SMOKE FILLED COCKPIT WHILE AIRCRAFT WAS ON GROUND. DIRECTIONAL GYRO WAS BURNED INTERNALLY. GYRO REPLACED ALONG WITH CIRCUIT BREAKER THAT FAILED TO TRIP.									

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## INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS (cont'd)

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5313		BELL 206B	ALLSN 250C*			LONGERON 263131449	CRACKED BELOW ENG MT	13213	11/23/93 CA931129006
(CAN) DURING INSTALLATION OF ENGINE MOUNT SUPPORT FITTING, P/N 206031266002 IAW BELL TECHNICAL BULLETIN 206-79-29, THE LONGERON WAS FOUND WITH A 2 INCH CRACK HALF AN INCH BELOW THE ENGINE MOUNT RUNNING FORE AND AFT. THE CRACK WAS NOT EASILY VISIBLE AND HAD TO BE CONFIRMED BY USING DYE PENETRANT. AIRCRAFT TT: 14,992 HOURS.									
5551		BELL 206B	ALLSN 250C20		206020119050	BUSHING 206020122003	DEBONDED RT HORIZ STAB	6/24/97 264	CA970715012
(CAN) RIGHT HAND HORIZONTAL STABILIZER FOUND WITH EXCESSIVE MOVEMENT. OVER 2 INCHES IN BOTH VERTICAL AND HORIZONTAL DIRECTIONS BUSHING HAD DEBONDED AND SCORED 2 GROOVES IN BOTTOM OF SPAR P/N 206-020-120-011. ALSO, INBOARD FITTING WAS ELLIPTICAL RATHER THAN CONCENTRIC.									
6220		BELL 206B	ALLSN 250C20		2060101009	BEARING 206010189001	CRACKED M/R GRIP	6/13/97	CA970630003
(CAN) WHEN REPLACING GRIPS FOR TX, FOUND BEARING WITH A CRACKED SEPARATOR.									
6220		BELL 206B	ALLSN 250C20		206011100021	STATIC STOP 206011160101	INCORRECT M/R	7/24/97 99	CA970731015
(CAN) AIRCRAFT ROUGH IN HOVER AND CLUNKING NOISE HEARD ON SHUTDOWN. INSPECTION SHOWED INCORRECT SHIMMING OF STATIC STOPS ALLOWING FITTING TO ROTATE IN BORE OF YOKE WHICH POUNDED ONTO STATIC STOP, DAMAGING STATIC STOP. PROSEAL FOUND INSIDE YOKE ON RADIUS RINGS AND FITTINGS. SHOULD NOT BE ANY PROSEAL.									
6220		BELL 206L1	ALLSN 250C28B			PINS 206011125105	WRONG PART M/R	831 30	7/7/97 CA970722010
(CAN) INCORRECT PIN INSTALLED, A 206B PIN RATHER THAN A 206L PIN WAS INSTALLED.									
6320		BELL 206B	ALLSN 250C20B		689171	GEARBOX 689171	FAILED M/R GR BOX	7903 3033	4/26/97 CA970609006
(CAN) METAL FOUND ON CHIP DETECTORS, MAINLY LOWER ONE, AND IN ENGINE AND NICAD FILTER. OIL AND FILTERS REPLACED. SYSTEM FLUSHED. MORE CHIPS ONE HOUR LATER. GEARBOX REPLACED.									
6510		BELL 206L			206040370013	IMPELLER	CRACKED T/R DRIVE	8/25/97	CA970909017
(CAN) DURING 100-HOUR ANNUAL, THE IMPELLER WAS FOUND CRACKED IN SEVERAL LOCATIONS.									
6710		BELL 206B	ALLSN 250C20			PIVOT 206001397001	CRACKED CYCLIC SUPPORT	8/16/97	CA970902002
(CAN) .25 INCH CRACK FOUND ON CYCLIC PIVOT SUPPORT. THIS ITEM USED TO BE 1,200 HOUR ZYGLO INSPECTION, BUT WAS DELETED AS A REQUIREMENT SOME YEARS AGO. FOUND BECAUSE PILOT COULD NOT TIGHTEN FRICTION ON THE CYCLIC STICK.									
6710		BELL 206B	ALLSN 250C20			CYCLIC	BINDING VERTICAL TUNNEL	7/4/97	CA970807043
(CAN) ABNORMAL CYCLIC CONTROL NOTED BY PILOT. THROTTLE CABLE IN VERTICAL TUNNEL BINDING ON CONTROL TUBES WHEN CYCLIC MOVED TO EXTREME POSITIONS.									
6720		BELL 206B	ALLSN 250C20B		206040400107	TRUNNION 206011728001	WORN T/R	5192 3368	6/15/97 CA970722014
(CAN) PITCH CHANGE TRUNNION WORN BEYOND LIMITS.									
6730		BELL 206L1	ALLSN 250C28B		RONSON 206076062003	SCREW C4264235	BROKEN SERVO	7/8/97 133	CA970715013
(CAN) NUT NOTED AS MISSING FROM THE SERVO PILOT VALVE LOWER SCREW. SCREW WAS BROKEN AT THE FIRST THREAD FROM THE SHANK. NUT PROBABLY OVERTORQUED AT INSTALLATION.									

\*\*\*\*\* DENOTES SIGNIFICANT OCCURRENCE

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7120		BELL 206L1	ALLSN 250C28B			FRAME 26331747	CRACKED LT ENG MT	6355	10/6/93 CA931027601
(CAN) FRAME CRACKED AT LT ENGINE MOUNT.									
7230		BELL 206B	ALLSN 250C20			COMPRESSOR 6853337	CRACKED AXIAL STAGE	10269 1842	7/4/96 CA960717007
(CAN) SUSPECT POSSIBLE SEPARATION OF FIRST STAGE STATOR BLADES CAUSING EXTENSIVE DAMAGE TO COMPRESSOR AND TURBINE AND ENGINE FAILURE. PART TC: 6,604.									
7230		BELL 206B	ALLSN 250C20		5863337	SEAL CAC38883	LEAKING ENGINE INLET	5218 1453	2/18/97 CA970311002
(CAN) NR 1 SEAL LEAKING. PART TC: 11,543.									
7230		BELL 206B	ALLSN 250C20		6877410	LINER 22764	MISSING 4TH STAGE		9/29/96 CA970311003
(CAN) DURING CASE HALF INSPECTION, 3 LARGE PIECES OF LINER NOTED AS MISSING IN 4TH STAGE AREA .									
7230		BELL 206L	ALLSN 250C20R2			COMPRESSOR	FAILED ENGINE		8/10/97 CA970922029
(CAN) THE AIRCRAFT WAS AT 400 FEET AGL, WHEN PILOT HEARD A LOUD BANG AND THE A/C YAWED LEFT AND AUTOROTATED TO THE GROUND. AIRFRAME SUFFERED MAJOR DAMAGE. ENGINE AND TRANSMISSION REMOVED FOR INVESTIGATION.									
7230		BELL 206L	ALLSN 250C20R2		23038126	BEARING CAC15175	MAKING METAL NR 2 ENG	3981	7/25/96 CA970311023
(CAN) NR 2 BEARING MAKING METAL. BEARING INSPECTED AND FOUND TO BE NOISY WITH BALL SHOWING EVIDENCE OF GALLING. PART TC: 3,325.									
7230		BELL 206L	ALLSN 250C20R2			BEARING	WORN COMPRESSOR	1818	9/2/96 CA960916008
(CAN) NOISY COMPRESSOR ON START-UP. BEARING NOISE ON THE INLET OF COMPRESSOR.									
7230		BELL 206L	ALLSN 250C20R2			ROTOR VANE 23032623	FAILED ENGINE	3564 61	4/17/97 CA970507021
(CAN) TWO MINUTES INTO CLIMB-OUT, A BANG TYPICAL OF A COMPRESSOR STALL WAS HEARD COMING FROM THE ENGINE. YAW TO RIGHT AND ENG AUTO RE-IGNITION ACTIVATED. INSTRUMENTATION INDICATE ENGINE OPERATION NORMAL. FLIGHT ABORTED. PART TC: 3,461.									
7314		BELL 206B	ALLSN 250C20			FUEL PUMP 233114	BROKEN BOLT REAR COVER PLATE	4180 1298	10/7/93 CA931117607
(CAN) DURING INSPECTION AFTER LAST FLIGHT OF THE DAY, THE ENGINEER NOTICED A BOLT HEAD AND WASHER LYING IN THE ENGINE PAN. THE BROKEN BOLT WAS FROM THE FUEL PUMP COVER. NO VISIBLE LEAK FROM THE FUEL PUMP COVER WAS NOTICED. THE COVER WAS STILL HELD ON BY FOUR OTHER BOLTS TWO OF WHICH WERE LOCKWIRED AND SEALED.									
7320		BELL 206L	ALLSN 250C20B		206063703001	BOLT AN1736	WORN ENG FCU LEVER		10/25/93 CA931112607
(CAN) ERRATIC N1 RESPONSE ON STARTUP AND IN-FLIGHT. INSPECTION REVEALED BOLT WORN MORE THAN HALF WAY THROUGH. LEVER P/N 206-061-716-3 WAS ELONGATED.									
7322		BELL 206L1	ALLSN 250C28B		BENDIX	FUEL CONTRL UNIT 2332246	FAILED ENGINE		8/20/96 CA970311045
(CAN) AIRCRAFT IN HOVER, ENGINE DECELERATED. AIRCRAFT AUTO-ROTATED TO GROUND. ENGINE CONTINUED TO OPERATE BUT WOULD ONLY PRODUCE 90 PERCENT NR. FUEL CONTROL UNIT REPLACED.									

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7323		BELL 206L	ALLSN 250C20R2			ACTUATOR 206062721011	FAILURE ENG GOV		5/22/96 CA960729014
(CAN) AFTER STARTING THE ENGINE, THE PILOT WAS UNABLE TO RAISE THE ROTOR RPM ABOVE 90 PERCENT NR. THERE WAS NO BEEP TRIM RANGE AVAILABLE AND THE ENGINE WAS SHUT DOWN. ON INSPECTION, FOUND THE INTERNAL STOP OF THE LINEAR ACTUATOR HAD FAILED AND THE SHAFT WAS OVER EXTENDED PUTTING THE ENGINE GOVERNOR AT FULL DECREASE. THE SHAFT HAD BEEN EXTENDED TO THE POINT THAT ITS THREADS AND THE THREADS OF THE ACTUATING SCREW HAD SEPARATED MAKING IT UNABLE TO RETRACT.									
7323		BELL 206L1	ALLSN 250C28B			GOVERNOR 23007507	FAILED ENGINE		12/8/96 40 CA970626009
(CAN) ENGINE LOST POWER SUDDENLY, THEN SURGED TOWARDS OVERTORQUE AND OVERSPEED. POWER OSCILLATIONS IN-FLIGHT.									
7722		BELL 206B	ALLSN 250C20			INDICATOR 206075190001	FRAYED PLUG END		5/7/97 CA970626012
(CAN) TOT INDICATOR RECEIVED FROM O/H WITH ELECTRICAL PLUG FOR THE INSTRUMENT LIGHTING TORN OFF WITH THE FRAYED ENDS OF WIRING REMAINING.									
7920		BELL 206B	ALLSN 250C20B			ELBOW AN8334J	CRACKED OIL SYS		7/21/97 CA970731016
(CAN) CRACK FOUND HALFWAY AROUND CIRCUMFERENCE OF FITTING. CRACK ON SIDE OF FITTING STRESSED DURING TIGHTENING TO STOP OIL LEAK.									
7921		BELL 206B	ALLSN 250C20			OIL COOLER 8534998	FAILED ENG OIL		7/13/97 CA970904031
(CAN) ENGINE OIL TEMP RUNNING AT 100 DEGREES CELSIUS DURING CRUISE. OIL COOLER REPLACED.									
2920		BELL 212				HOSE 70012J220W234	CHAFED HYD SYS		6/22/97 CA970709013
(CAN) WHILE IN HOVER, AIRCRAFT EXPERIENCED LOSS OF NR 2 HYDRAULIC PRESSURE INDICATION WITH WARNING INDICATION AND THE SMELL OF HYDRAULIC FLUID WAS NOTICED IN CABIN. FLEX LINE FOUND CHAFED AND LEAKING.									
6720		BELL 212	PWA PT6T3B			CONTROL TUBE 2121583	WORN T/R	2549	10/14/93 CA931027602
(CAN) TUBE SUPPLIED WITH 4 ABRASION STRIPS BONDED TO TUBE. THREE HAVE DEBONDED THE STRIP THAT PROTECTS THE TUBE WHERE IT PASSES THROUGH THE LOWER GUIDE HAS PIECES TORN FROM IT WHICH ALLOWED THE TUBE TO CONTACT THE GUIDE ALLOWING THE TUBE TO WEAR BEYOND LIMITS.									
7250		BELL 212	PWA PT6T3			TURBINE WHEEL	DAMAGED NR 2 ENGINE		12/1/97 CA980113002
(CAN) AT 6,000 FEET IN CRUISE AT 80 PERCENT TORQUE, NR 2 ENGINE MADE A LOUD BANG WITH A GRINDING SOUND -'POOF SOUND'- THEN A CHIP DETECTOR LIGHT. THERE WAS NO PREVIOUS WARNING. PILOT REDUCED NR 2 ENGINE POWER TO IDLE AND LANDED ON A FROZEN LAKE. POST-FLIGHT INSP FOUND NO EXTERNAL DAMAGE OR OIL LEAKS. A BOLT HEAD (POSSIBLY A MS9488 OR MS9489) FOUND IN EXHAUST STACK. THE POWER TURBINE WHEEL WAS FOUND HEAVILY DAMAGED. FWD CHIP DETECTOR HAD SMALL AMOUNTS OF FERROUS METAL AND AFT CHIP DETECTOR WAS LOADED.									
7603		BELL 212	PWA PT6T3			FLEX SHAFT 209001196001	JAMMED NR 2 ENG		6/28/97 CA970728017
(CAN) NR 2 ENGINE FAILED TO LIGHT ON START WITHIN 15 SECONDS, START ABORTED. THE THROTTLE JAMMED AND THE PILOT DID NOT NOTICE THAT LIGHT OFF HAD OCCURRED PRIOR TO COMEPLETING FAILED START PROCEDURE CALLING FOR STARTER DISENGAGE AND FUEL SHUT OFF. LIMITS EXCEEDED. INVESTIGATION FOUND SAND ACCUMULATED BETWEEN NR 1 AND NR 2 THROTTLE FLEX SHAFTS IN THE CAVITY OF THE COPILOT'S ELBOW AND SUPPORT ASSY MAKING IT IMPOSSIBLE TO ROLL BACK NR 2 THROTTLE. THE COVER TO PROTECT AGAINST FOREIGN MATTER HAD NOT BEEN INSTALLED.									

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6322		BELL 407				OIL TANK 206061505115	CRACKED ENG OIL	696	6/27/97 CA970728013
(CAN) OIL FOUND ON DECK UNDER ENGINE OIL RESERVOIR. FOUND OIL TANK CRACKED ON TOP. ALSO, FOUND BROKEN OIL TANK SUPPORTS AND OIL COOLER BLOWER SUPPORT BRACKETS. BROKEN ANGLE BRACKETS AT STN. 192.0, WL 73.25. CAUSE OF CRACKS APPEARS TO BE EXCESSIVE VIBRATION OF T/R DRIVE OIL COOLER BLOWER SHAFT/FLYWHEEL ADAPTER.									
6322		BELL 407				SUPPORT BRACKETS 206032305129A	CRACKED OIL COOL BLOWER	570	7/10/97 CA970728014
(CAN) CRACKS FOUND ON OIL COOLER BLOWER SUPPORT BRACKETS AT STN. 192.0, WL 73.25. ALSO FOUND CRACKED ANGLE BRACKETS, FRAME AND BONDED OIL COOLER PANEL ASSY. OIL COOLER TRANSITION BRACKET HAD SMALL CRACK.									
6310		BELL 47G3B			0476204859	BEARING B121892	UNDERSIZE ENG/TRANS CPLNG		3/28/96 AU960433
(AUS) MAIN ROTOR TRANSMISSION DRIVE FLANGE SHEAR SCREWS DISTORTED - SUSPECT DUE TO SLIPPAGE OF THE FREEWHEEL UNIT DUE TO FITMENT OF UNDERSIZE BEARING ROLLERS AND SUBSEQUENT SHOCK LOADING DURING RE-ENGAGEMENT - SEE ALSO MDR 96/0435 AND MDR 96/0341									
6320		BOEING 1072	GE CT581401		107D2011515A	BOLT MS200740607	BROKEN TRANSMISSION		7/3/97 1265 CA970722005
(CAN) ON LOGGING CYCLE TRANSMISSION 'CHIP' LIGHT ON. DISASSEMBLY OF TRANSMISSION REVEALED A SAFETY WIRED BOLT HAD BROKEN AT THE HEAD AND CONTACTED INTERNAL GEARS. BOLTS NOT NORMALLY INSPECTED.									
6200		BOLKMS BO105C	ALLSN 250C20B		10531821	BEARING 116488P	WORN OUTER HOUSING		10/19/93 CA931112611
(CAN) BEARING WORN EXCESSIVELY IN AXIAL WITHIN LIMITS RADIALLY.									
6320		BOLKMS BO105S	ALLSN 250C20B		ZAHNRAD FABR 4638001001	BEARING	FAILED M/R GR BOX	3883 875	3/28/97 CA970609014
(CAN) SEVERAL SMALL SLIVERS AND FLAKES OF METAL FOUND IN MAIN GEARBOX OIL FILTER. OIL ANALYSIS INDICATE BEARING MATERIAL FAILURE. GEARBOX REPLACED.									
6410		CARSON S61LSKRSKY			S6110314003	BLADE S611730101045	DAMAGED T/R	1104 36	6/18/97 CA970709001
(CAN) AIRCRAFT FLEW THROUGH HAIL STORM WHICH PEELED BACK TRAILING EDGE OF TAIL ROTOR BLADES. ALL FIVE BLADES DAMAGED. TWO SUBSTANTIALLY DAMAGED.									
7320		CARSON S61LSKRSKY	GE CT581401		HAMSTD	FUEL CONTRL UNIT 7257255	FAILED ENGINE	6679 3103	9/17/96 CA970311012
(CAN) ENGINE WILL NOT TOP. CANNOT OBTAIN ACCEPTABLE TORQUE. TAKE OVER MANUAL SPEED LEVER AND ENGINE IS NORMAL. PART TC: 1.									
7322		CARSON S61LSKRSKY	GE CT581401		HAMSTD	FUEL CONTRL UNIT 7257255	FAILED ENGINE		9/16/96 1672 CA970311010
(CAN) ENGINE WILL NOT MEET MINIMUM ACCEPTABLE TORQUE. LOW POWER, LOW T5, HIGH NG. NO CHANGE ON MANUAL THROTTLE. PART TC: 29.									
3310		ENSTRM F28F				RHEOSTAT RESSR	CHARRED COCKPIT	2152	11/1/93 CA931117601
(CAN) BOTH RHEOSTATS BURNED OUT.									
6220		HUGHES 369D	ALLSN 250C20B			DROOP RING	MISINSTALLED M/R	4270 1144	6/24/97 CA970807040
(CAN) DROOP RING WAS FOUND TO BE INCORRECTLY INSTALLED. BOTH DROOP RING AND FOLLOWERS WERE INSTALLED UPSIDE DOWN, CAUSING CONTACT BETWEEN THE RING AND LOWER SHOE OF THE MAIN ROTOR HUB. THE LOWER SHOE WAS DAMAGED.									

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6322		HUGHES 369D	ALLSN 250C20B			BLOWER 369D25630101	FAILED OIL COOL BLOWER	7/2/97 264	CA970807042
(CAN) VIBRATION FROM OIL COOLER BLOWER COULD BE FELT IN THE AIRFRAME AND PILOTS PEDALS. ACCELEROMETER TEST SHOWED HIGH FREQUENCY VIBRATION.									
6410		HUGHES 369D	ALLSN 250C20B		369D21600503	BLADE 369D2161311N	DELAMINATED T/R	3393	12/11/97 CA980114005
(CAN) A NEW LEADING EDGE WAS INSTALLED 451 HOURS AGO IN COMPLIANCE WITH MDHS NOTICE DN187 PART 11. A SMALL DELAMINATION VOID .3750 INCH IN DIAMETER, 2 INCHES FROM THE TIP AND .1250 INCH FROM THE TRAILING EDGE OF THE LEADING EDGE STRIP.									
6710		HUGHES 369D	ALLSN 250C20B			BRACKET 369A7304	CRACKED ROTOR CONTROL	8/6/97 CA970902001	
(CAN) ROTOR CONTROL BEARING AND TORQUE TUBE ASSEMBLY BRACKET CAP CRACKED OFF. THE BRACKET ASSY CONSISTS OF THE BRACKET AND BEARING RETAINING CAP.									
7250		HUGHES 369D	ALLSN 250C20B			TURBINE 6898735	FAILURE ENGINE	10456 15	10/19/97 CA971113039
(CAN) COULD NOT START ENGINE DUE TO N2 LOCKUP. START ABORTED. RUBBING NOISE COULD BE HEARD WHEN N2 TURBINE ROTATED. TURBINE REPLACED. PART TC: 18.									
7320		HUGHES 369D	ALLSN 250C20B		BENDIX	GOVERNOR 23057870	DROOPING ENGINE	6/24/97 328	CA970731019
(CAN) DROOPING 4 PERCENT NR WHEN POWER PULLED IN WITH SLOW OR NO RECOVERY IN RPM UNTIL POWER REDUCED. AIRCRAFT HAD TO LAND BEFORE RECOVERY OF RPM.									
7323		HUGHES 369D	ALLSN 250C20B		BENDIX	GOVERNOR 2305780	MALFUNCTION ENGINE	6/25/97 264	CA970731020
(CAN) GOVERNOR INSTALLED FOR TEST RUN AND HOVER TEST. IN-FLIGHT HOVER AT LOWER POWER SETTINGS, THE RPM WOULD FLUCTUATE 5 PERCENT.									
5302		ROBSIN R22BETA				TAIL CONE A02323	DAMAGED ATTACH	750	8/7/97 CA970820019
(CAN) DURING SIMULATED ENGINE OUT IN HOVER OVER SOFT GROUND, THE ENGINE FAILURE CAUSED THE HELICOPTER TO ROTATE RIGHT AND AT GROUND CONTACT THERE WAS A COUNTERSHOCK. THIS LED TO THE TAIL CONE DAMAGE. DAMAGE LOCATED ABOUT 5 O'CLOCK A FEW INCHES BEHIND THE ATTACH POINT. AIRCRAFT TT: 2,626 HOURS.									
6220		ROBSIN R22				BEARING A6481	CHAFED TEETER HINGE	837	5/14/97 CA970626015
(CAN) AT 100-HOUR INSPECTION, THE MAIN ROTOR TEETER HINGE BEARING WAS FOUND CHAFED AND ELONGATED.									
6322		ROBSIN R44				FANWHEEL D1742	CRACKED CENTER HUB	44	6/9/97 CA970624001
(CAN) BEFORE FIRST FLIGHT OF DAY, AIRCRAFT IN HOVER. CLUTCH LIGHT FLICKERING AND PILOT HEARS GROWLING AND FEELS VIBRATION. INSPECTION FOUND CENTER HUB IN THE FAN HAD CRACKED COMPLETELY AROUND CAUSING THE CENTER HUB BOLTS TO LOOSEN OFF. THERE WAS ALSO A LOT OF METAL TRANSFER BETWEEN FANWHEEL AND TAPERED SHAFT OF BEARING ASSY (P/N C007-5).									
7532		ROBSIN R44	LYC O540F1B5			VALVE 9560137030	FAILED BLEED	6/15/97 40	CA970620004
(CAN) BLEED VALVE DID NOT OPERATE FOLLOWING INSTALLATION. BENCH TEST CONFIRMED INTERNAL FAILURE. WHEN POWER APPLIED, VALVE BECAME VERY HOT.									
2421		SKRSKY S61N			BENDIX 28B13529A	BEARING 15841535	FAILED AC GENERATOR	859	11/5/93 CA931121402
(CAN) DURING RETURN TO BASE, PILOT SMELLED ELECTRICAL FUMES IN THE COCKPIT SHORTLY AFTER THE NR 1 GENERATOR FAIL LIGHT ILLUMINATED. GENERATOR WAS RESET BUT FAILED AGAIN. GENERATOR SELECTED TO "OFF" POSITION AND AIRCRAFT SAT DOWN ON NEAREST LANDING PAD. GROUND INSPECTION REVEALED NR 1 GENERATOR WAS SLIGHTLY WARMER TO THE TOUCH THAN NR 2 GENERATOR. AIRCRAFT RETURNED TO HOME BASE WHERE NR 1 GENERATOR WAS REPLACED. INSPECTION OF NR 1 GENERATOR REVEALED A LARGE AMOUNT OF RADIAL PLAY IN THE FORWARD BEARING AND THE DRIVESHAFT QUITE DIFFICULT TO TURN. THIS IS THE SECOND FAILURE OF THIS GENERATOR BEARING REPORTED BY THIS SUBMITTER.									

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6320		SKRSKY S61N	GE CT58*			RING GEAR S613522173	BROKEN MAIN GRBOX	588	10/20/93 CA931118101
(CAN) MAIN GEARBOX CHIP LIGHT CAME ON DURING LOGGING OPERATION. CHIP PLUG INSPECTED AND STEEL FRAGMENTS FOUND. COARSE SCREEN CHECKED WITH MORE FRAGMENTS OF GEAR TEETH FOUND. GEARBOX REMOVED AND SENT TO OVERHAUL. RING GEAR FOUND BROKEN.									
7261		SKRSKY S61N	GE CT581401			OIL JET 6029T27G03	OBSTRUCTED NR 1 OIL JET	9/9/96 1680	CA961007004
(CAN) DURING GROUND RUN FOLLOWING ENGINE INSTALLATION, IT WAS OBSERVED THAT NR 2 ENGINE OIL PRESSURE WAS HIGHER THAN NORMAL (60 VICE 45 PSI). ENGINE REMOVED AND A PIECE OF O-RING WAS FOUND OBSTRUCTING NR 1 OIL JET. ENGINE INSTALLED AND GROUND RUN NORMAL.									
2910		SKRSKY S76A	ALLSN 250C30S			HOSE SS48C2C16500	LEAKING NR 2 HYD	7/29/97 CA970812003	
(CAN) DURING FINAL, NR 2 HYDRAULIC PRESSURE WAS AT 2700 PSI, 10 SECONDS LATER, PRESSURE AT ZERO. NR 2 HYDRAULIC SWITCH SELECTED TO OFF. CONTROLS CHECKED FOR BINDING. AFTER SHUTDOWN, LEAK FOUND IN NOSE WHEEL AREA.									
3222		SKRSKY S76A	ALLSN 250C30S		1944E100B	TORQUE ARM	JAMMED NLG	8/6/97 CA970812004	
(CAN) ON APPROACH, NOSE LANDING GEAR DID NOT EXTEND. SCISSORS/TORQUE ARM HAD JAMMED AGAINST THE ACTUATOR RESTRICTING THE GEAR.									
6210		SKRSKY S76A	ALLSN 250C30			BLADE 7615945	CRACKED ROOT END M/R	4306 CA931117604	11/6/93
(CAN) DURING SCHEDULED INSPECTION, MRB SPAR ROOT END WAS FOUND CRACKED APPROXIMATELY 2 INCHES LONG PROPAGATING FROM LOWER OUTBOARD FORWARD BOLT HOLE.									
6510		SKRSKY S76A	TMECA		761010500104	PITCH LINKS 7610105002102	CORRODED T/R	7/30/97 CA970806013	
(CAN) PITTING CORROSION FOUND IN THE THREADED AREA OF THE TAIL ROTOR PITCH CHANGE BEARING.									
2520		SNIAS AS350B2				SEAT BELT G101533	FRAYED BELT GUIDE	705 CA970630001	6/23/97
(CAN) EDGES OF SEAT BELT WERE FOUND FRAYED - DUE TO THE BELT GUIDE ON THE REEL BEING BROKEN AND MISSING.									
6210		SNIAS AS350B	TMECA ARRIEL1B		350A31183106	BUSHING M16468	DEFECTIVE M/R	750 CA970722011	7/4/97
(CAN) BLADE PIN BUSHINGS ROTATING.									
6210		SNIAS AS350B	TMECA ARRIEL1B		350A31183106	BUSHING M122230	DEFECTIVE BLADE PIN	3579 CA970722013	7/17/97
(CAN) BLADE PIN BUSHING ROTATING.									
6210		SNIAS AS350BA	TMECA ARRIEL1B			BLADE 355A1002006	CRACKED M/R	3498 CA970731018	6/19/97
(CAN) THREE INCH CRACK FOUND IN THE LOWER SKIN OF A MAIN BLADE. CRACK LOCATED 53 INCHES IN FROM THE BLADE ROOT. CRACK RUNS 90 DEGREES FROM LEADING EDGE.									
6220		SNIAS AS350B	TMECA ARRIEL1B			STARFLEX 350A31190703	CRACKED M/R	1315 CA970618014	6/1/97
(CAN) 2 CRACKS IN CENTER SECTION OF STAR, AREA G1 AS PER MWC 62.20.00.601 FIG. 3. CRACKS EXTENDED DOWNWARD 21 AND 25 MM RESPECTIVLY AND AROUND BOTTOM EDGE AND CONTINUED INBOARD 2 AND 3 MM RESPECTIVELY.									

\*\*\*\*\* DENOTES SIGNIFICANT OCCURRENCE

**INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS (cont'd)**

4/26/98 To 5/2/98 ISSUE: 98-18 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
6220		SNIAS AS350B	TMECA ARRIEL1B			STOP 704A33633156	DELAMINTED M/R	1542	7/4/97 CA970722012
(CAN) SPHERICAL STOP DELAMINATED TO MAX LIMITS.									
6420		SNIAS AS350BA	TMECA ARRIEL1B			HINGE 350A33215300	DELAMINATED BUSHING MOUNT	81	6/23/97 CA970630002
(CAN) DELAMINATIONS CAUSED EXCESSIVE VIBRATION (HIGH FREQ) IN FLIGHT AND ON GROUND. SPLITS AND DELAMINATIONS IN EXCESS OF ALLOWABLE LIMITS OCCURED AT VERY LOW T.S.N.									
6710		SNIAS AS350B	TMECA ARRIEL1B			SERVO AC67246	LEAKING M/R CONTROL	5414 1632	7/24/97 CA970904026
(CAN) MAIN ROTOR FLIGHT CONTROL HYDRAULIC SERVO LEAKING AT THE PISTON BASE BEYOND LIMITS.									
6720		SNIAS AS350BA	TMECA ARRIEL1B		350A33200401	BEARINGS	ROUGH T/R PITCH CHANG	4289 603	7/18/97 CA970904030
(CAN) LIFE LUBRICATED BALL BEARINGS ON THE TAIL ROTOR PITCH CHANGE PLATE WERE ROUGH AND RACHETY, AND FELT HOT TO THE TOUCH.									
7250		SNIAS AS350D	LYC LTS101600A2			TURBINE ROTOR 4141293	DISPLACEMENT PT BLADE		10/12/93 CA931021601
(CAN) DURING COMPLIANCE WITH TEXTRON LYCOMING SERVICE BULLETIN NR LT101-72-50-0153R1, INSPECTION OF POWER TURBINE ROTOR, DISPLACEMENT OF BLADE NR 20 EXCEEDED THE ALLOWABLE LIMIT BY .004 INCH. POWER TURBINE REMOVED FOR REPAIR.									
7250		SNIAS AS350D	LYC LTS101600A2			TURBINE ROTOR 4141293	DISPLACEMENT NR 1 BLADE	866	11/8/93 CA931117603
(CAN) DURING COMPLIANCE WITH TEXTRON LYCOMING SERVICE BULLETIN LTS101-72-50-0153 REVISION 1 (INSPECTION OF POWER TURBINE ROTOR), DISPLACEMENT OF NR 1 BLADE EXCEEDED THE ALLOWABLE LIMIT BY .003 INCH. POWER TURBINE WAS REMOVED FOR REPAIRS. PART TC: 1,539.									
7532		SNIAS AS350B	TMECA ARRIEL1B			VALVE 950158260	INTERMITTENT BLEED		6/17/97 CA970626011
(CAN) BLEED VALVE CLOSING INTERMITTENTLY. PART TC: 9,897.									

(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS)

**INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - ENGINES****4/26/98 - 5/2/98 ISSUE: 98-18 ZAC-327**

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
7314		AEROSP AS355F2	ALLSN 250C20R2			UNION 355A523182	CRACKED FUEL PUMP	1406	9/13/93 CA931020001
(CAN) ENGINE RELIGHT TWICE IN 10 SECONDS. ACCOMPANIED BY A TORQUE SURGE. INVESTIGATION REVEALED MAIN FUEL "IN" UNION ON ENGINE DRIVEN FUEL PUMP CRACKED IN 4 PLACES.									
7322		AIRTRC AT301	PWA R1340*		BENDIX	CARBURATOR NAY9E1	FAILED FLOAT		10/26/93 CA931108205
(CAN) ENGINE FAILED ON TAKEOFF. DAMAGING AIRCRAFT. ENGINE HUNG UP IN TEST STAND AND REFUSE TO RUN. CARBURETOR REMOVED, FLOAT FOUND STUCK IN UP POSITION CAUSING FUEL CUT OFF. CARBURETOR DISMANTLED, RE-ASSEMBLED, RUN SATISFACTORILY ON TEST STAND. NO FAULT FOUND IN FLOAT ASSEMBLY AND REASON FOR STUCK FLOAT UNKNOWN.									
7322		AIRTRC AT301	PWA R1340*		BENDIX	CARBURETOR NAY9E1	FLOAT STUCK ENGINE		4/24/93 CA931129009
(CAN) AIRCRAFT LOST THE ENGINE ON TAKEOFF AND CRASH LANDED. INVESTIGATION REVEALED THE FLOAT PIVOT SHAFT ON THE CARBURETOR WAS OVERTIGHTENED RESULTING IN THE CRUSHING OF THE FIBER GASKET AND BINDING OF THE FLOAT PIVOTS. THE RESULT WAS FUEL STARVATION AND ENGINE STOPPAGE.									
8500		AYRES S2RNORMAL	WRIGHT R182099			ENGINE	DEFECTIVE ENG OIL PRESS	705	1/26/93 CA931108012
(CAN) PREMATURE REMOVAL OF ENGINE DUE TO ENGINE OIL PRESSURE BELOW MANUFACTURER'S SPECIFICATION.									
8520		BBAVIA 8GCBC	LYC O360C2E			CRANKCASE	CRACKED BASE IF NR 2 CYL	1841	11/9/93 CA931121405
(CAN) CRANKCASE FOUND CRACKED AT BASE OF NR 2 CYLINDER. CRACK FOUND DURING INSPECTION AFTER REMOVAL OF THE STARTER.									
7314		BEECH B200	PWA PT6A41			FUEL PUMP 91383	FAILED NR 1 ENGINE	1459	5/11/93 CA931121407
(CAN) EN ROUTE AT FL 210, THE CREW OBSERVED THE FUEL FLOW FLUCTUATING ON NR 1 ENGINE IMMEDIATELY FOLLOWED BY THE ENGINE FLAMING OUT. SHUTDOWN PROCEDURES WERE CARRIED OUT AND THE FLIGHT CONCLUDED ON ONE ENGINE WITH NO DIFFICULTIES AND LANDED. INSPECTION ON GROUND REVEALED THE NR 1 ENGINE FUEL PUMP DRIVE SHAFT HAD SHEARED. PART TC: 1,320.									
7320		BEECH 200BEECH	PWA PT6A41			HOSE	SLIPPED RT ENGINE FCU	1879	4/13/93 CA931121406
(CAN) ON DESCENT, POWER LEVERS WERE RETRACTED. POWER ON RT ENGINE WOULD NOT COME BACK. ENGINE SHUT DOWN. INSPECTION FOUND ENGINE BREATHER HOSE, WHICH WAS SUPPORTED BY AN ADEL CLAMP TO ENGINE MOUNT, HAD MOVED DUE TO DETERIORATION OF RUBBER LINER. THIS ALLOWED HOSE TO COME IN CONTACT WITH AN310 CASTLE NUT AND COTTER PIN WHICH ATTACHES FCU CONTROL ARM TO FCU CONTROL ROD. THIS HOLDING FCU AT CRUISE SETTING.									
8520		BEECH H35	CONT O470G			GEAR 537432	FAILED CAMSHAFT	172	11/24/93 CA931206201
(CAN) THREE TEETH ON THE CAMSHAFT GEAR BROKE OFF WHEN THE AIRCRAFT ENGINE WAS STARTED. THE SPACE IN THE GEAR LINED UP WITH THE CRANK GEAR AND THE CAMSHAFT WOULD NOT TURN. THERE WAS NO DAMAGE TO THE CRANKSHAFT GEAR. THE CAMSHAFT GEAR WAS MAGNAFLUXED AND THREE MORE CRACKS WERE FOUND IN THE TEETH OF THE CAMSHAFT.									
7230		BELL 206B	ALLSN 250C20			LINER 6877410 22764	MISSING 4TH STAGE		9/29/96 1496 CA970311003
(CAN) DURING CASE HALF INSPECTION, 3 LARGE PIECES OF LINER NOTED AS MISSING IN 4TH STAGE AREA .									
7230		BELL 206B	ALLSN 250C20			COMPRESSOR 6853337	CRACKED AXIAL STAGE	10269 1842	7/4/96 CA960717007
(CAN) SUSPECT POSSIBLE SEPARATION OF FIRST STAGE STATOR BLADES CAUSING EXTENSIVE DAMAGE TO COMPRESSOR AND TURBINE AND ENGINE FAILURE. PART TC: 6,604.									

\*\*\*\*\* DENOTES SIGNIFICANT OCCURRENCE

**INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - ENGINES (cont'd)**

4/26/98 To 5/2/98 ISSUE: 98-18 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
7230		BELL 206B	ALLSN 250C20		5863337	SEAL CAC38883	LEAKING ENGINE INLET	5218 1453	2/18/97 CA970311002
(CAN) NR 1 SEAL LEAKING. PART TC: 11,543.									
7230		BELL 206L	ALLSN 250C20R2			ROTOR VANE 23032623	FAILED ENGINE	3564 61	4/17/97 CA970507021
(CAN) TWO MINUTES INTO CLIMB-OUT, A BANG TYPICAL OF A COMPRESSOR STALL WAS HEARD COMING FROM THE ENGINE. YAW TO RIGHT AND ENG AUTO RE-IGNITION ACTIVATED. INSTRUMENTATION INDICATE ENGINE OPERATION NORMAL. FLIGHT ABORTED. PART TC: 3,461.									
7230		BELL 206L	ALLSN 250C20R2			COMPRESSOR	FAILED ENGINE		8/10/97 CA970922029
(CAN) THE AIRCRAFT WAS AT 400 FEET AGL, WHEN PILOT HEARD A LOUD BANG AND THE A/C YAWED LEFT AND AUTOROTATED TO THE GROUND. AIRFRAME SUFFERED MAJOR DAMAGE. ENGINE AND TRANSMISSION REMOVED FOR INVESTIGATION.									
7230		BELL 206L	ALLSN 250C20R2			BEARING	WORN COMPRESSOR	1818	9/2/96 CA960916008
(CAN) NOISY COMPRESSOR ON START-UP. BEARING NOISE ON THE INLET OF COMPRESSOR.									
7230		BELL 206L	ALLSN 250C20R2		23038126	BEARING CAC15175	MAKING METAL NR 2 ENG	3981	7/25/96 CA970311023
(CAN) NR 2 BEARING MAKING METAL. BEARING INSPECTED AND FOUND TO BE NOISY WITH BALL SHOWING EVIDENCE OF GALLING. PART TC: 3,325.									
7314		BELL 206B	ALLSN 250C20			FUEL PUMP 233114	BROKEN BOLT REAR COVER PLATE	4180 1298	10/7/93 CA931117607
(CAN) DURING INSPECTION AFTER LAST FLIGHT OF THE DAY, THE ENGINEER NOTICED A BOLT HEAD AND WASHER LYING IN THE ENGINE PAN. THE BROKEN BOLT WAS FROM THE FUEL PUMP COVER. NO VISIBLE LEAK FROM THE FUEL PUMP COVER WAS NOTICED. THE COVER WAS STILL HELD ON BY FOUR OTHER BOLTS TWO OF WHICH WERE LOCKWIRED AND SEALED.									
7320		BELL 206L	ALLSN 250C20B		206063703001	BOLT AN1736	WORN ENG FCU LEVER		10/25/93 CA931112607
(CAN) ERRATIC N1 RESPONSE ON STARTUP AND IN-FLIGHT. INSPECTION REVEALED BOLT WORN MORE THAN HALF WAY THROUGH. LEVER P/N 206-061-716-3 WAS ELONGATED.									
7322		BELL 206L1	ALLSN 250C28B		BENDIX	FUEL CONTRL UNIT 2332246	FAILED ENGINE		8/20/96 CA970311045
(CAN) AIRCRAFT IN HOVER, ENGINE DECELERATED. AIRCRAFT AUTO-ROTATED TO GROUND. ENGINE CONTINUED TO OPERATE BUT WOULD ONLY PRODUCE 90 PERCENT NR. FUEL CONTROL UNIT REPLACED.									
7323		BELL 206L	ALLSN 250C20R2			ACTUATOR 206062721011	FAILURE ENG GOV		5/22/96 CA960729014
(CAN) AFTER STARTING THE ENGINE, THE PILOT WAS UNABLE TO RAISE THE ROTOR RPM ABOVE 90 PERCENT NR. THERE WAS NO BEEP TRIM RANGE AVAILABLE AND THE ENGINE WAS SHUT DOWN. ON INSPECTION, FOUND THE INTERNAL STOP OF THE LINEAR ACTUATOR HAD FAILED AND THE SHAFT WAS OVER EXTENDED PUTTING THE ENGINE GOVERNOR AT FULL DECREASE. THE SHAFT HAD BEEN EXTENDED TO THE POINT THAT ITS THREADS AND THE THREADS OF THE ACTUATING SCREW HAD SEPARATED MAKING IT UNABLE TO RETRACT.									
7323		BELL 206L1	ALLSN 250C28B			GOVERNOR 23007507	FAILED ENGINE		12/8/96 CA970626009
(CAN) ENGINE LOST POWER SUDDENLY, THEN SURGED TOWARDS OVERTORQUE AND OVERSPEED. POWER OSCILLATIONS IN-FLIGHT.									

\*\*\*\*\* DENOTES SIGNIFICANT OCCURRENCE

## INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - ENGINES (cont'd)

4/26/98 To 5/2/98 ISSUE: 98-18 ZAC-327

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
7250		BELL 212	PWA PT6T3			TURBINE WHEEL	DAMAGED NR 2 ENGINE		12/1/97 CA980113002
(CAN) AT 6,000 FEET IN CRUISE AT 80 PERCENT TORQUE, NR 2 ENGINE MADE A LOUD BANG WITH A GRINDING SOUND -'POOF SOUND'- THEN A CHIP DETECTOR LIGHT. THERE WAS NO PREVIOUS WARNING. PILOT REDUCED NR 2 ENGINE POWER TO IDLE AND LANDED ON A FROZEN LAKE. POST-FLIGHT INSP FOUND NO EXTERNAL DAMAGE OR OIL LEAKS. A BOLT HEAD (POSSIBLY A MS9488 OR MS9489) FOUND IN EXHAUST STACK. THE POWER TURBINE WHEEL WAS FOUND HEAVILY DAMAGED. FWD CHIP DETECTOR HAD SMALL AMOUNTS OF FERROUS METAL AND AFT CHIP DETECTOR WAS LOADED.									
8520		BNORM BN2A26	LYC O540E4C5			CRANKSHAFT 7539	BROKEN NR 6 CYL THROW	1680	10/19/93 CA931027201
(CAN) PILOT REPORTED AN UNFAMILIAR AND STRANGE NOISE SIMILAR TO GRINDING COMING FROM NR 1 ENGINE. DURING SUBSEQUENT RUN-UP, ALL ENGINE PARAMETERS WERE NORMAL. REMOVAL OF NR 3 CYLINDER REVEALED THE CRANKSHAFT BROKEN AND KNOCKING REPEATEDLY ON NR 4 CYLINDER SKIRT AND ON THE SIDE OF THE CRANKCASE.									
8530		BNORM BN2A21	LYC IO540K1B5			STUD 3816	FAILED NR 3 CYL BASE	1310	11/13/93 CA931129104
(CAN) DURING CRUISE, THE NR 1 ENG EMITTED A "THUD" NOISE, FOLLOWED BY FLAME ON INB SIDE, ROUGH RUNNING AND LOSS OF POWER. THE ENG WAS SECURED AND THE FIRE SELF-EXTINGUISHED. INSP REVEALED THAT NR 3 CYL HAD SEPARATED FROM THE CRANKCASE AND THAT ALL EIGHT STUDS HAD FAILED. FURTHER INVEST SEEMS TO INDICATE THE SMALL STUD AT THE ELEVEN O'CLOCK POSIT FAILED 1ST, INSIDE THE CYL BASE TRANSMITTING EXTRA LOAD, AND SLIGHT MOVEMENT TO THE OTHER STUDS WHICH FAILED PROGRESSIVELY AND RAPIDLY. THE FIRE WAS CAUSED BY THE BREAKING OF THE FUEL INJECTOR, RUPTURE OF THE EXHAUST PIPE, AND MASSIVE LOSS OF OIL. DUE TO THE SHORT DURATION, THERE WAS NO SIGNIFICANT DAMAGE TO THE ENG.									
7322		CESSNA 152	LYC O235L2C		FACET MABA	CARBURETOR C15159	CONTAMINATED ENGINE		3/30/96 AU960432
(AUS) CARBURETTOR BOWL AND VENTURI CONTAMINATED - FLOAT MOUNTING SHAFT SLIGHTLY WORN									
7414		CESSNA 180J	CONT O470K		BENDIX	MAGNETO 17921	FAILED DISTRIBUTOR GEAR	1508	11/22/93 CA931129103
(CAN) FAILURE OCCURRED DURING MORNING START-UP, TEMPERATURE (-40 DEGREES CELSIUS). THE ENGINE STARTED NORMALLY, TWO MINUTES INTO WARM-UP, THE ENGINE BEGAN TO RUN ROUGH AND THE RIGHT HAND MAGNETO WENT DEAD. INVESTIGATION REVEALED THE MAGNETO DISTRIBUTOR GEAR TEETH STRIPPED AND ONE-QUARTER OF THE TEETH MISSING.									
7313		CESSNA U206G	CONT IO520F			FUEL INJECTOR 627335D13B	LOOSE ENGINE	754	11/5/93 CA931116007
(CAN) AT 200-HOUR INSPECTION, FUEL INJECTOR SHROUD AND SCREEN WERE FOUND LOOSE AND DAMAGED BY VIBRATION. INJECTOR REPLACED.									
8520		CESSNA U206G	CONT IO520F			CONNECTING ROD	FAILED ENGINE	566	11/8/93 CA931207013
(CAN) CYLINDER FAILURE, CONNECTING ROD FAILURE CAUSED HOLE IN CRANKCASE.									
8530		CESSNA U206G	CONT IO520F			PUSH ROD TUBE 53834	BENT CYL EXH	372	11/4/93 CA931201001
(CAN) UPON CYLINDER REMOVAL THE EXHAUST PUSH ROD TUBE AND PUSH ROD WERE FOUND BENT AND WORN. DAMAGE APPEARS TO HAVE BEEN CAUSED BY EXTERNAL FORCE PRYING ON THE PUSH ROD TUBE.									
8530		CESSNA U206G	CONT IO520F			CYLINDER 639272	CRACKED NR 1 EXH PORT	372	11/5/93 CA931115201
(CAN) AT 200-HOUR INSPECTION, NR 1 CYLINDER WAS FOUND CRACKED AT THE EXHAUST PORT APPROXIMATELY 2 INCHES LONG IN CASTING ABOVE VALVE HEAD.									
8530		CESSNA U206G	CONT IO520F			PUSH ROD 537296	BENT CYL EXH	372	11/4/93 CA931202001
(CAN) UPON CYLINDER REMOVAL, THE EXHAUST PUSH ROD TUBE AND PUSH ROD WERE FOUND BENT AND WORN. DAMAGE APPEARS TO HAVE BEEN CAUSED BY EXTERNAL FORCE PRYING ON THE PUSH ROD TUBE.									

\*\*\*\*\* DENOTES SIGNIFICANT OCCURRENCE

## INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - ENGINES (cont'd)

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ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
8530		CESSNA 404CESSNA	CONT GTSIO520M		CR731A1	ROTO COIL 629117	BROKEN NR 2 CYLINDER	874	11/5/93 CA931116302
(CAN) OIL LEAK NR 2 ENGINE. INVESTIGATION REVEALED SMALL PUNCTURE IN ROCKER COVER, EXHAUST. NR 2 CYLINDER COVER REMOVED AND ROTO COIL WAS BROKEN AND APPROXIMATELY 1/4 OF THE ROTO COIL HAD SEPARATED. ALL BROKEN PIECES RECOVERED.									
8520		CESSNA 421C	CONT GTSIO520L			CRANKCASE	CRACKED NR 1 CYL BORE	1038	10/30/97 CA971110003
(CAN) PILOT REPORTED NR 1 ENGINE WAS RUNNING ROUGH. MAINTENANCE FOUND OIL LEAKS AND EVIDENCE OF COMBUSTION DETONATION AT NR 1 CYLINDER. FURTHER INSPECTION FOUND NR 36 STUD WAS PULLED OUT OF THE CRANKCASE THREADS. THE NR 1 CYLINDER BORE IN THE CRANKCASE WAS FOUND CRACKED FROM NR 35 STUD THREADS UP INTO THE CYLINER BORE. THE ENGINE WAS REMOVED FOR REPAIR AND A FACTORY REMANUFACTURED ENGINE WAS INSTALLED.									
8530		DHAV DHC2MK1	PWA R985AN14B			PUSH ROD 39288	SEPARATED NR 1 CYL EXH	715	10/20/97 CA971104001
(CAN) BALL END OF NR 1 CYLINDER PUSH ROD CAME LOOSE, COCKED AND LODGED IN THE EXHAUST VALVE CAUSING THE ENGINE TO RUN ROUGH.									
8520		DHAV DHC3	PWA R1340*			CONNECTING ROD	BROKEN NR 9 CYLINDER	266	11/2/93 CA931112204
(CAN) NR 9 CONNECTING ROD BROKE AT NR 9 CRANK PIN ALLOWING THE PISTON TO TRAVEL UPWARDS DESTROYING NR 9 CYLINDER AND PISTON ASSEMBLY AND CONTAMINATING THE ENGINE. ENGINE AND CASE DAMAGED EXCESSIVELY. NR 9 CYLINDER SEPARATED PUTTING A HOLE IN THE TOP COWL AND THROWING PIECES OUT INTO PROP.									
8530		DHAV DHC3	PWA R1340*			GUIDE EXH VALVE 2342	DISINTEGRATING NR 4 CYLINDER	423	10/18/93 CA931026002
(CAN) PILOT REPORTED ENGINE POPPING SEVERAL DAYS PRIOR TO FAILURE. ON LAST FLIGHT, PUFF OR SMOKE EMITTED FROM ENGINE COWLING AND LOSS OF ENGINE POWER. AIRCRAFT NURSED TO BASE. INSPECTION REVEALED ENGINE SOAKED WITH OIL. FURTHER INSPECTION REVEALED OIL BEING THROWN FROM INTAKE PIPE. OIL ALSO PRESENT IN CARBURETOR INTAKE AND NOSE SECTION FOUND PRESSURIZED.									
8530		DHAV DHC3	PWA R1340*			CYLINDER	SEPARATED NR 5,7,8 CYL	173	8/30/93 CA931112206
(CAN) OVERHAULED ENGINE INSTALLED. NR'S 4, 5, 7, AND 8 CYLINDERS AND PISTON ASSEMBLIES REPLACED DUE TO HEAD SEPARATION. TSOH 173 HOURS.									
8530		DHAV DHC3	PWA R1340*			CYLINDER 2578CA1	SEPARATED NR 2	166	8/30/93 CA931112205
(CAN) ON DESCENT, PILOT EXPERIENCED ROUGH RUNNING ENGINE AND DID AN EMERGENCY APPROACH AND LANDING. AFTER SHUTDOWN, INSPECTION REVEALED NR 2 CYLINDER HEAD HAD SEPARATED .25 INCH FROM BARREL. CYLINDER WAS REPLACED. THERE WAS NO INDICATION OF OVERBOOST.									
7250		HUGHES 369D	ALLSN 250C20B			TURBINE 6898735	FAILURE ENGINE	10456 15	10/19/97 CA971113039
(CAN) COULD NOT START ENGINE DUE TO N2 LOCKUP. START ABORTED. RUBBING NOISE COULD BE HEARD WHEN N2 TURBINE ROTATED. TURBINE REPLACED. PART TC: 18.									
7320		HUGHES 369D	ALLSN 250C20B		BENDIX	GOVERNOR 23057870	DROOPING ENGINE	328	6/24/97 CA970731019
(CAN) DROOPING 4 PERCENT NR WHEN POWER PULLED IN WITH SLOW OR NO RECOVERY IN RPM UNTIL POWER REDUCED. AIRCRAFT HAD TO LAND BEFORE RECOVERY OF RPM.									
7323		HUGHES 369D	ALLSN 250C20B		BENDIX	GOVERNOR 2305780	MALFUNCTION ENGINE	264	6/25/97 CA970731020
(CAN) GOVERNOR INSTALLED FOR TEST RUN AND HOVER TEST. IN-FLIGHT HOVER AT LOWER POWER SETTINGS, THE RPM WOULD FLUCTUATE 5 PERCENT.									
8520		PIPER PA31350	LYC TIO540J2BD			CRANKCASE 2223	CRACKED RT SIDE	1233	8/6/93 CA931124007
(CAN) AFTER A 50-HOUR INSPECTION RUN-UP, AN OIL LEAK WAS OBSERVED FROM THE LT SIDE OF THE ENGINE. CLOSER INSPECTION FOUND A 4 INCH CRACK ON THE RT SIDE OF THE ENGINE CASE UNDER NR 3 CYLINDER PAD STARTING FROM OIL DRAIN LINE FITTING TO CRANKSHAFT. ENGINE REMOVED FOR REPAIR.									

\*\*\*\*\* DENOTES SIGNIFICANT OCCURRENCE

## INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - ENGINES (cont'd)

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7320		PIPER PA31T	PWA PT6A28	L		TUBE PY PRESS 311843	CRACKED ENG CONTROL	2335	10/8/93 CA931025301
(CAN) ENGINE REPORTED SLOW TO ACCELERATE AND LOW IDLE. PY TUBE CRACKED AT FLARE FITTING TO FCU.									
7532		ROBSIN R44	LYC O540F1B5			VALVE 9560137030	FAILED BLEED	40	6/15/97 CA970620004
(CAN) BLEED VALVE DID NOT OPERATE FOLLOWING INSTALLATION. BENCH TEST CONFIRMED INTERNAL FAILURE. WHEN POWER APPLIED, VALVE BECAME VERY HOT.									
7250		SNIAS AS350D	LYC LTS101600A2			TURBINE ROTOR 4141293	DISPLACEMENT NR 1 BLADE	866	11/8/93 CA931117603
(CAN) DURING COMPLIANCE WITH TEXTRON LYCOMING SERVICE BULLETIN LTS101-72-50-0153 REVISION 1 (INSPECTION OF POWER TURBINE ROTOR), DISPLACEMENT OF NR 1 BLADE EXCEEDED THE ALLOWABLE LIMIT BY .003 INCH. POWER TURBINE WAS REMOVED FOR REPAIRS. PART TC: 1,539.									
7250		SNIAS AS350D	LYC LTS101600A2			TURBINE ROTOR 4141293	DISPLACEMENT PT BLADE		10/12/93 CA931021601
(CAN) DURING COMPLIANCE WITH TEXTRON LYCOMING SERVICE BULLETIN NR LT101-72-50-0153R1, INSPECTION OF POWER TURBINE ROTOR, DISPLACEMENT OF BLADE NR 20 EXCEEDED THE ALLOWABLE LIMIT BY .004 INCH. POWER TURBINE REMOVED FOR REPAIR.									
7532		SNIAS AS350B	TMECA ARRIEL1B			VALVE 950158260	INTERMITTENT BLEED	1067	6/17/97 CA970626011
(CAN) BLEED VALVE CLOSING INTERMITTENTLY. PART TC: 9,897.									
(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - ENGINES)									

**INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - COMPONENTS****4/26/98 - 5/2/98 ISSUE: 98-18 ZAC-327**

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3422		BELL 206B				DIRECTIONAL GYRO 200DC	BURNT COCKPIT		5/24/97 CA970618013
(CAN) SMOKE FILLED COCKPIT WHILE AIRCRAFT WAS ON GROUND. DIRECTIONAL GYRO WAS BURNED INTERNALLY. GYRO REPLACED ALONG WITH CIRCUIT BREAKER THAT FAILED TO TRIP.									
6113		CESSNA R172K		MCAULY 2A34C203		SPINNER 0550338K200	CRACKED PROP	63	6/18/97 CA970702021
(CAN) THE PROP SPINNER WAS CHANGED DUE TO CRACKING AT 21.7 HOURS. AT 62.5 HOURS, THE NEW SPINNER TORE AT THE SCREW ATTACH HOLES. SUBMITTER INSTALLED AN OLDER SPINNER AND SUGGESTED A MANUFACTURING FAULT.									
3460		CESSNA 550	PWA JT15D4			DATA BASE 13442RE	ERROR FLT MANAGMNT SYS		6/21/96 CA960724402
(CAN) WHEN DOING A FLIGHT MANAGEMENT SYSTEM APPROACH, FMS DISENGAGED AND STEERING COMMANDS WENT OFF THE SCREEN. PILOT UNABLE TO RE-ENGAGE APPROACH. AIRCRAFT PERFORMED CORRECTLY ON NORMAL APPROACH (ILS). WHILE UNDER INVESTIGATION, MANUFACTURER CONTACTED AND THEY INFORMED SUBMITTER THAT THE DATABASE WAS IN ERROR AND UPDATED DISKS WERE SENT TO INSTALL NEW UPDATED DATABASE.									
3418		PIPER PA23250				LIFT DETECTOR 450742	CONTAMINATED STALL SYS		5/24/97 CA970603025
(CAN) DURING OPERATION IN RAIN AND SNOW STALL WARNING LIGHT REMAINED ON AFTER A/C STALL COMPLETED. AFTER LANDING, STALL LIFT DETECTOR WORKED AND LIGHT WENT OUT. AFTER COMPLETION OF OPERATION, STALL LIFT DETECTOR INSPECTED AND FOUND DIRTY, PAINT AND WATER. SWITCH AND DETECTOR CLEANED.									
3424		PIPER PA31T	PWA PT6A28			EJECTOR 4644600	ICED TURN/BANK		2/27/97 CA970306004
(CAN) VACUUM TURN AND BANK INDICATOR FAILED TO COME ON LINE AFTER AIRCRAFT WAS SITTING OUTSIDE AT BELOW ZERO DEGREES. FOUND EJECTOR TIP PLUGGED WITH ICE. HOSE REPLACED TO EJECTOR SO THAT EJECTOR TIP IS NO LONGER THE LOWEST PART OF SYSTEM.									
2562		PIPER PA44180			ARTEX 1104	BATTERY PACK 4520130	SPLIT ELT CASE	540	8/13/97 CA970815011
(CAN) UPON REMOVAL FOR TRANSFER TO ANOTHER AIRCRAFT, THE SPLIT IN THE CASE AND THE LEAKING ELECRTOLYTE WAS FOUND. THE EXPIRATION WAS FEB/98 AND THE RECERTIFICATION WAS DEC/97, WELL WITHIN LIMITS.									
(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - COMPONENTS)									



**INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - PROPELLERS**

**4/26/98 - 5/2/98    ISSUE: 98-18    ZAC-327**

ATA	REG. NO	ACFT MAKE	ENG MAKE	PROP MAKE	COMP MFG	PART NAME	PART COND	TT	DIFF. DATE
OPER	SERIAL NO	ACFT MODEL	ENG MDL	PROP MDL	COMP MDL	PART NUMBER	PART LOC.	TSO	OPER CONT NO

(There was no data for this report.)

(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - PROPELLERS)



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

## **SERVICE DIFFICULTY REPORT SUMMARY**

### **GENERAL AVIATION - INDEX**



The following information provides a tally of the Service Difficulty Reports (SDR's) contained in this weeks issue of the General Aviation SDR Summary. The totals represent only a summation of the SDR's that were submitted to the FAA, Aviation Data Systems Branch, AFS-620, and processed in time for inclusion in the Summary. The first table is a tally of the number of SDR's submitted through the indicated Flight Standards District Office (FSDO). The second table sorts the SDR's by the aircraft or equipment make and model. The heading at the top of each table provides a two digit Joint Aircraft System/Component (JASC) code grouping (e.g., JASC codes 1100 thru 1800 are represented by the heading labeled 11-18) which categorizes in general, the problem areas for each reported discrepancy.

The Flight Standards Service Difficulty Program objective is to achieve prompt and appropriate correction of conditions adversely affecting continued airworthiness of aeronautical products. This is accomplished by the collection of Service Difficulty and Malfunction or Defect Reports. SDR's are consolidation and collation into common data base where they are analyzed for trends, problems, and alert information. This information is then disseminated to the appropriate segments of the aviation community and to other FAA offices.

The number of SDR's submitted is not an indicator of the mechanical reliability or fitness of an air carrier's aircraft fleet and should not be used as such. The air carriers certificate holding office has the primary responsibility for planning, programming evaluations, and assessing the performance of operators. Questions regarding an air carrier's fleet performance should be directed to the appropriate Flight Standards District Office, Certificate Management Office, or Certificate Management Unit.

**GENERAL AVIATION SUMMARY INDEX BY DISTRICT OFFICE****4/26/98 To 5/2/98    ISSUE: 98-18    ZAC-327**

DISTRICT OFFICE		SDR TOTALS BY FAA ATA SYSTEM CHAPTER								TOTAL
		11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	
AL	03	0	0	1	0	1	0	0	0	2
AU	S	0	1	1	0	0	1	2	0	5
CA		0	47	47	0	42	34	45	18	233
CE	01	0	0	0	0	1	0	0	0	1
CE	05	0	0	0	0	1	0	1	0	2
EA	07	0	1	0	0	0	0	0	0	1
EA	09	0	0	0	0	0	0	1	0	1
EA	13	0	0	0	0	0	0	4	0	4
GL	03	0	0	0	0	0	258	0	0	258
GL	05	0	0	0	0	0	0	2	0	2
GL	11	0	2	0	0	0	0	0	0	2
GL	17	0	0	1	0	0	0	1	0	2
GL	21	0	0	2	0	1	0	0	0	3
GL	23	0	0	0	0	1	0	0	0	1
NE	01	0	0	0	0	1	0	0	4	5
NE	03	0	0	0	0	0	0	1	4	5
NE	05	0	2	0	0	0	0	0	1	3
NM	01	0	0	0	0	2	0	0	0	2
NM	05	0	0	1	0	1	0	0	0	2
NM	09	0	1	0	0	2	5	0	0	8
SO	01	0	0	0	0	0	0	1	0	1
SO	05	0	0	3	0	0	0	0	0	3
SO	13	0	0	1	0	0	0	0	0	1
SO	15	0	1	1	0	0	0	0	0	2
SO	16	0	0	0	0	2	0	0	0	2
SO	33	0	0	0	0	0	0	1	0	1

DISTRICT OFFICE		11-18	21-29	SDR TOTALS BY FAA ATA SYSTEM CHAPTER						
				30-38	45-49	51-57	61-67	71-79	80-85	TOTAL
SW	03	0	35	46	0	2	49	24	0	156
SW	05	0	1	0	0	0	0	0	0	1
SW	15	0	0	1	0	2	0	0	0	3
SW	99	0	1	0	0	0	0	0	0	1
WP	07	0	0	0	0	0	0	0	1	1
WP	09	0	0	1	0	0	0	0	0	1
WP	19	0	1	0	0	1	0	0	0	2
WP	23	0	0	0	0	1	0	0	1	2
<b>TOTALS</b>		<b>0</b>	<b>93</b>	<b>106</b>	<b>0</b>	<b>61</b>	<b>347</b>	<b>83</b>	<b>29</b>	<b>719</b>

(End of GENERAL AVIATION SUMMARY INDEX by DISTRICT OFFICE Report)

**GENERAL AVIATION SUMMARY INDEX by MANUFACTURER MAKE and MODEL****4/26/98 To 5/2/98    ISSUE: 98-18    ZAC-327**

AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER								TOTAL
		11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	
AEROSP	AS355F2	0	0	0	0	0	0	1	0	1
AIRTRC	AT301	0	0	0	0	0	0	2	0	2
AIRTRC	AT400	0	0	0	0	0	1	0	0	1
AMTRJG	QUESTAIR20	0	0	1	0	0	0	0	0	1
AYRES	S2RNORMAL	0	0	0	0	0	0	0	1	1
BBAVIA	7AC	0	0	0	0	0	1	0	0	1
BBAVIA	8GCBC	0	2	0	0	0	0	0	1	3
BBAVIA	8KCAB	0	0	1	0	0	0	0	0	1
BEECH	100BEECH	0	1	1	0	1	6	0	0	9
BEECH	200BEECH	0	4	2	0	0	2	1	0	9
BEECH	35B33	0	0	0	0	2	0	0	0	2
BEECH	50	0	0	0	0	0	3	0	0	3
BEECH	58	0	0	1	0	0	5	1	0	7
BEECH	65A80	0	0	0	0	0	1	0	0	1
BEECH	65A90	0	1	0	0	4	0	0	0	5
BEECH	70	0	0	1	0	0	0	0	0	1
BEECH	95A55	0	0	0	0	0	1	0	0	1
BEECH	99	0	0	0	0	2	0	0	0	2
BEECH	99A	0	0	1	0	0	0	0	0	1
BEECH	A100	0	0	6	0	7	0	1	0	14
BEECH	A23	0	0	0	0	0	1	0	0	1
BEECH	A36	0	0	1	0	0	3	0	0	4
BEECH	B100	0	1	0	0	0	0	0	0	1
BEECH	B200	0	0	0	0	0	0	1	0	1
BEECH	B200C	0	0	1	0	0	0	0	0	1
BEECH	B24R	0	0	0	0	0	1	0	0	1
BEECH	B35	0	0	0	0	0	1	0	0	1

AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER								TOTAL
		11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	
BEECH	B36TC	0	2	0	0	0	0	0	0	2
BEECH	B90	0	0	0	0	1	1	0	0	2
BEECH	B95	0	0	0	0	0	8	0	0	8
BEECH	B99	0	2	0	0	0	0	0	0	2
BEECH	C23	0	0	0	0	1	0	0	0	1
BEECH	C99	0	1	0	0	0	0	0	0	1
BEECH	E55	0	0	1	0	0	3	0	0	4
BEECH	F33A	0	0	0	0	0	1	0	0	1
BEECH	H35	0	0	0	0	0	0	0	1	1
BEECH	M35	0	0	0	0	0	0	1	0	1
BEECH	V35B	0	0	0	0	0	3	0	0	3
BELL	204B	0	0	0	0	1	0	0	0	1
BELL	205A1	0	1	0	0	0	0	0	0	1
BELL	206B	0	4	1	0	2	6	8	0	21
BELL	206B3	0	3	1	0	0	0	1	0	5
BELL	206L	0	0	1	0	0	1	6	0	8
BELL	206L1	0	4	5	0	0	8	6	0	23
BELL	206L3	0	0	0	0	0	0	2	0	2
BELL	212	0	2	0	0	1	1	2	0	6
BELL	214ST	0	4	9	0	0	1	0	0	14
BELL	230	0	0	0	0	0	2	0	0	2
BELL	407	0	0	3	0	0	20	0	0	23
BELL	412	0	8	6	0	0	6	7	0	27
BELL	47G3B	0	0	0	0	0	1	0	0	1
BLANCA	1419	0	0	0	0	0	3	0	0	3
BNORM	BN2	0	0	0	0	0	2	0	0	2
BNORM	BN2A21	0	0	0	0	0	0	0	1	1

AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER								TOTAL
		11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	
BNORM	BN2A26	0	0	0	0	0	0	0	1	1
BNORM	BN2B20	0	0	0	0	0	2	1	0	3
BOEING	1072	0	0	0	0	0	4	0	0	4
BOEING	234	0	0	0	0	0	1	0	0	1
BOEING	A75N1	0	0	0	0	0	2	0	0	2
BOLKMS	BK117A3	0	0	2	0	0	0	0	0	2
BOLKMS	BK117A4	0	1	1	0	0	0	0	0	2
BOLKMS	BK117B1	0	1	2	0	0	0	0	0	3
BOLKMS	BK117B2	0	1	1	0	0	0	0	0	2
BOLKMS	BO105C	0	0	0	0	0	1	0	0	1
BOLKMS	BO105S	0	3	2	0	0	5	4	0	14
CARSON	S61LSKRISKY	0	0	0	0	0	1	2	0	3
CESSNA	140	0	0	0	0	0	2	0	0	2
CESSNA	150	0	0	0	0	0	1	0	0	1
CESSNA	150G	0	0	0	0	1	0	0	0	1
CESSNA	150L	0	0	0	0	1	0	0	0	1
CESSNA	152	0	0	0	0	1	0	1	0	2
CESSNA	170B	0	0	0	0	1	0	0	0	1
CESSNA	172	0	0	1	0	0	3	0	0	4
CESSNA	172E	0	1	0	0	0	0	0	0	1
CESSNA	172F	0	1	0	0	0	0	0	1	2
CESSNA	172K	0	0	0	0	0	0	1	0	1
CESSNA	172M	0	2	1	0	0	0	2	0	5
CESSNA	172N	0	0	0	0	0	0	1	0	1
CESSNA	172P	0	1	0	0	0	0	1	0	2
CESSNA	172R	0	0	0	0	2	0	0	0	2
CESSNA	172RG	0	0	0	0	0	1	0	0	1

AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER								TOTAL
		11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	
CESSNA	177B	0	0	0	0	0	1	0	0	1
CESSNA	180C	0	0	1	0	0	0	0	0	1
CESSNA	180G	0	0	0	0	0	1	0	0	1
CESSNA	180H	0	0	0	0	0	1	0	0	1
CESSNA	180J	0	0	0	0	0	0	2	0	2
CESSNA	180K	0	1	0	0	0	1	0	0	2
CESSNA	182	0	0	0	0	0	6	0	0	6
CESSNA	182F	0	0	0	0	0	1	0	0	1
CESSNA	182P	0	0	1	0	0	1	0	0	2
CESSNA	182Q	0	0	0	0	1	0	0	0	1
CESSNA	182R	0	0	0	0	0	3	0	0	3
CESSNA	185E	0	0	0	0	0	3	0	0	3
CESSNA	188CESSNA	0	0	0	0	0	3	0	0	3
CESSNA	206CESSNA	0	0	0	0	0	1	0	0	1
CESSNA	207A	0	1	0	0	0	0	0	0	1
CESSNA	208	0	0	0	0	0	9	0	0	9
CESSNA	208B	0	0	0	0	1	0	0	0	1
CESSNA	210	0	0	0	0	0	4	0	0	4
CESSNA	210D	0	0	0	0	1	0	0	0	1
CESSNA	210F	0	0	0	0	1	0	0	0	1
CESSNA	310	0	0	0	0	0	3	0	0	3
CESSNA	310J	0	0	1	0	0	0	0	0	1
CESSNA	310K	0	0	0	0	0	4	0	0	4
CESSNA	310P	0	0	0	0	0	8	0	0	8
CESSNA	310Q	0	0	0	0	0	9	0	0	9
CESSNA	310R	0	0	2	0	0	7	0	0	9
CESSNA	335	0	0	0	0	0	3	0	0	3



AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER								TOTAL
		11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	
CESSNA	337	0	0	0	0	0	2	0	0	2
CESSNA	337A	0	0	0	0	0	4	0	0	4
CESSNA	337B	0	0	1	0	0	0	0	0	1
CESSNA	340A	0	0	0	0	2	21	0	0	23
CESSNA	340CESSNA	0	1	0	0	0	0	0	0	1
CESSNA	401	0	0	0	0	0	3	0	0	3
CESSNA	402B	0	0	0	0	0	2	0	1	3
CESSNA	402C	0	0	0	0	0	5	0	2	7
CESSNA	402CESSNA	0	0	0	0	0	5	0	0	5
CESSNA	404CESSNA	0	0	0	0	0	0	0	1	1
CESSNA	414	0	0	0	0	0	5	0	0	5
CESSNA	421	0	0	0	0	0	6	0	0	6
CESSNA	421A	0	1	0	0	0	0	0	0	1
CESSNA	421B	0	0	0	0	0	1	0	0	1
CESSNA	421C	0	0	0	0	1	7	0	2	10
CESSNA	501	0	1	0	0	0	0	0	0	1
CESSNA	550	0	4	2	0	3	0	0	0	9
CESSNA	A185E	0	2	1	0	0	0	0	0	3
CESSNA	A185F	0	1	3	0	2	0	0	0	6
CESSNA	P206C	0	0	0	0	0	1	0	0	1
CESSNA	P206D	0	1	0	0	0	0	0	0	1
CESSNA	R172K	0	0	0	0	0	1	0	0	1
CESSNA	R182	0	0	0	0	0	0	0	1	1
CESSNA	T210*	0	0	0	0	0	1	0	0	1
CESSNA	T210M	0	0	0	0	0	10	0	0	10
CESSNA	T303	0	0	0	0	0	4	0	0	4
CESSNA	U206	0	0	0	0	0	3	0	0	3

AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER								TOTAL
		11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	
CESSNA	U206F	0	0	1	0	0	0	0	0	1
CESSNA	U206G	0	1	1	0	0	0	1	4	7
DHAV	DHC2MK1	0	1	0	0	0	0	0	1	2
DHAV	DHC3	0	0	2	0	0	0	1	4	7
DHAV	DHC6100	0	0	0	0	1	0	0	0	1
DHAV	DHC6200	0	0	0	0	1	0	0	0	1
DHAV	DHC6300	0	4	0	0	1	4	0	0	9
DIAMON	DA20A1	0	2	0	0	0	0	0	0	2
DORNER	DO228*	0	0	0	0	0	3	0	0	3
ENSTRM	F28F	0	0	1	0	0	0	0	0	1
GULSTM	560	0	0	0	0	0	0	1	0	1
GULSTM	AA5	0	0	0	0	0	1	0	0	1
HUGHES	269C	0	0	1	0	0	0	0	0	1
HUGHES	369D	0	0	0	0	0	4	5	0	9
ISRAEL	ARAVA101	0	0	0	0	0	1	0	0	1
KAWSKI	KV1072	0	0	0	0	0	1	0	0	1
MOONEY	M20E	0	0	0	0	0	1	0	0	1
MOONEY	M20K	0	0	1	0	0	0	0	0	1
MOONEY	M20R	0	0	0	0	0	0	1	0	1
MTSBSI	MU2B35	0	1	0	0	0	0	0	0	1
PILATS	PC12	0	0	0	0	1	0	0	0	1
PIPER	PA11	0	0	0	0	0	1	0	0	1
PIPER	PA22150	0	0	0	0	1	0	0	0	1
PIPER	PA23	0	0	0	0	0	6	0	0	6
PIPER	PA23160	0	0	0	0	0	2	0	0	2
PIPER	PA23250	0	1	2	0	1	6	2	0	12
PIPER	PA24250	0	0	0	0	0	10	0	1	11

AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER								TOTAL
		11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	
PIPER	PA28*	0	0	0	0	0	2	0	0	2
PIPER	PA28140	0	0	1	0	2	0	0	0	3
PIPER	PA28160	0	0	0	0	1	0	0	0	1
PIPER	PA28180	0	0	0	0	0	0	0	1	1
PIPER	PA28181	0	0	0	0	0	0	0	1	1
PIPER	PA28R180	0	0	0	0	0	1	0	0	1
PIPER	PA28R200	0	0	3	0	0	0	0	0	3
PIPER	PA28R201	0	0	1	0	0	0	0	0	1
PIPER	PA28R201T	0	0	0	0	0	1	0	0	1
PIPER	PA31	0	1	2	0	1	0	0	0	4
PIPER	PA31310	0	0	0	0	0	0	0	1	1
PIPER	PA31350	0	2	2	0	4	0	0	1	9
PIPER	PA31P350	0	0	0	0	0	1	0	0	1
PIPER	PA31T	0	0	2	0	0	0	1	0	3
PIPER	PA32260	0	1	0	0	0	0	0	0	1
PIPER	PA32300	0	0	0	0	0	2	0	0	2
PIPER	PA32301	0	0	0	0	0	2	0	0	2
PIPER	PA32R300	0	0	0	0	0	0	1	0	1
PIPER	PA32R301	0	0	0	0	1	0	1	0	2
PIPER	PA32RT300	0	0	1	0	0	0	0	0	1
PIPER	PA34*	0	0	0	0	0	2	0	0	2
PIPER	PA34200	0	0	3	0	1	4	0	1	9
PIPER	PA42	0	0	1	0	0	0	0	0	1
PIPER	PA44180	0	2	1	0	0	0	0	0	3
PIPER	PA46310P	0	0	0	0	1	0	0	0	1
PIPER	PA60600	0	0	0	0	0	0	1	0	1
PIPER	PA60601P	0	0	0	0	0	0	0	1	1

AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER								TOTAL
		11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	
RHNFLU	EXTRA300	0	0	0	0	2	0	0	0	2
ROBSIN	R22	0	0	0	0	0	1	0	0	1
ROBSIN	R22BETA	0	0	0	0	1	0	0	0	1
ROBSIN	R44	0	0	0	0	0	1	1	0	2
SKRSKY	S61N	0	1	0	0	0	1	1	0	3
SKRSKY	S76A	0	8	9	0	0	3	3	0	23
SNIAS	AS350B	0	0	0	0	0	5	1	0	6
SNIAS	AS350B2	0	3	6	0	1	11	4	0	25
SNIAS	AS350BA	0	0	0	0	0	3	0	0	3
SNIAS	AS350D	0	0	0	0	0	0	2	0	2
SOCATA	TB20TRINIDAD	0	0	0	0	0	0	1	0	1
STNSON	SM8A	0	0	0	0	0	1	0	0	1
ZLIN	Z242L	0	1	0	0	0	0	0	0	1
<b>TOTALS</b>		<b>0</b>	<b>93</b>	<b>106</b>	<b>0</b>	<b>61</b>	<b>347</b>	<b>83</b>	<b>29</b>	<b>719</b>

(End of AIR CARRIER SUMMARY INDEX by OPERATOR Report)

# JOINT AIRCRAFT SYSTEM/COMPONENT CODE TABLE

## PREFACE

The Joint Aircraft System/Component (JASC) Code Table is a modified version of the Air Transport Association of America (ATA), Specification 100 code. It was developed by the Federal Aviation Administration's (FAA), Aviation Data Systems Branch (AFS-620). Technical support was provided by the Galaxy Scientific Corporation, and various representatives of the air carrier and general aviation community.

Over the past four years, the JASC format of the ATA Spec 100 code has gained widespread industry acceptance. In a harmonized effort, the FAA's counterparts in Australia and Canada have adopted the JASC code with only a few exceptions. Some Canadian aircraft manufacturers have also recently adopted this new standard.

This code table is constructed by using the new JASC four (4) digit code, along with an abbreviated code title. The abbreviated titles have been modified in some cases to clarify the intended use of the accompanying code. This table can be used as a quick reference chart, to assist in the coding and review of aircraft structures or systems data (i.e., Service Difficulty Report (SDR), Accident/Incident Report).

The current coding scheme used in the JASC code was introduced in May 1991, for the technical classification of SDR's. Its predecessor, the FAA aircraft system/component code, was a similar but more complex eight-digit code which was developed over 25 years ago. It was constructed around the computer technology of that period. It consisted of a four digit numerical code plus a four alpha character code to make data retrieval possible. Since that time, computer technology has advanced many fold. Reducing the code from eight to four characters simplifies coding, and in some cases, makes JASC coding match the ATA Specification 100 first three digits, which are used to identify aircraft systems. The ATA code does not reference the fourth digit, so it is free to be used for identifying components.

The JASC code aircraft structural section has increased due to problems inherent with aging aircraft. As an example, FAA code 5301 SXBD was expanded to 20 items due to the high rate of reporting in this area (8021 structural reports were received in 1989). In some instances, there was very little reporting and codes were combined into other systems if the safety impact was not significant. The overall reduction in codes has been from 568 FAA codes to 488 JASC codes, with the significant increase being in the structural area as stated earlier.

The JASC code divides the engine section into two major code groups to separate the turbine and reciprocating engines. The codes for the turbine engines are in JASC Chapter 72, Turbine/Turboprop Engine. The codes for the reciprocating engines are now exclusively found in JASC Chapter 85, Reciprocating Engine.

The other major deviation from ATA Spec 100 is in ATA section 2730, specifically involves the stall warning system. Early technology (primarily on smaller aircraft) directly linked the sensing of flight attitude to one of the components which furnished the means of manually controlling the flight attitude characteristics (elevator). Today, most large transport category aircraft utilize electronic units to sense the change in the environmental condition called stall, and use the data to influence navigation. ATA section 3410, Flight Environment Data, includes high speed warning in its code definition. Stall warning (low speed) is the reciprocal term of high speed warning, so its filing under the same code appears more logical. Thus, with the JASC code it was decided to move the stall warning system to Chapter 34 under the separate code JASC code 3418, Stall Warning System.

The FAA is continuing to pursue worldwide involvement from operators and manufacturers in addressing the need for international standardization of aircraft system/component codes. The ultimate goal is to develop a universal aircraft/component numbering standard which can be used in the manufacturer's maintenance manual, wiring diagram manual, system manuals and illustrated parts catalog. This harmonized standard must be a usable standard for the aircraft manufacturers, air carrier operators and the general aviation community.

We welcome comments and feedback regarding the possible forming of working groups to achieve this long range consideration of possibly harmonizing the ATA Specification 100 code and the JASC code. Comments may be directed to the FAA, Aviation Data System Branch, AFS-620, P.O. Box 25082, Oklahoma City, OK 73125.

# JOINT AIRCRAFT SYSTEM/COMPONENT CODE TABLE

## JASC/ TITLE

### 11 PLACARDS AND MARKINGS

1100 PLACARDS AND MARKINGS

### 12 SERVICING

1210 FUEL SERVICING  
1220 OIL SERVICING  
1230 HYDRAULIC FLUID SERVICING  
1240 COOLANT SERVICING

### 18 HELICOPTER VIBRATION

1800 HELICOPTER VIB/NOISE ANALYSIS  
1810 HELICOPTER VIBRATION ANALYSIS  
1820 HELICOPTER NOISE ANALYSIS

### 21 AIR CONDITIONING

2100 AIR CONDITIONING SYSTEM  
2110 CABIN COMPRESSOR SYSTEM  
2120 AIR DISTRIBUTION SYSTEM  
2121 AIR DISTRIBUTION FAN  
2130 CABIN PRESSURE CONTROL SYSTEM  
2131 CABIN PRESSURE CONTROLLER  
2132 CABIN PRESSURE INDICATOR  
2133 PRESSURE REGUL/OUTFLOW VALVE  
2134 CABIN PRESSURE SENSOR  
2140 HEATING SYSTEM  
2150 CABIN COOLING SYSTEM  
2160 CABIN TEMPERATURE CONTROL SYSTEM  
2161 CABIN TEMPERATURE CONTROLLER  
2162 CABIN TEMPERATURE INDICATOR  
2163 CABIN TEMPERATURE SENSOR  
2170 HUMIDITY CONTROL SYSTEM

### 22 AUTO FLIGHT

2200 AUTO FLIGHT SYSTEM  
2210 AUTOPILOT SYSTEM  
2211 AUTOPILOT COMPUTER  
2212 ALTITUDE CONTROLLER  
2213 FLIGHT CONTROLLER  
2214 AUTOPILOT TRIM INDICATOR  
2215 AUTOPILOT MAIN SERVO  
2216 AUTOPILOT TRIM SERVO  
2220 SPEED-ATTITUDE CORRECT. SYSTEM  
2230 AUTO THROTTLE SYSTEM  
2250 AERODYNAMIC LOAD ALLEVIATING

### 23 COMMUNICATIONS

2300 COMMUNICATIONS SYSTEM  
2310 HF COMMUNICATION SYSTEM  
2311 UHF COMMUNICATION SYSTEM  
2312 VHF COMMUNICATION SYSTEM  
2320 DATA TRANSMISSION AUTO CALL  
2330 ENTERTAINMENT SYSTEM  
2340 INTERPHONE & PA SYSTEM  
2350 AUDIO INTEGRATING SYSTEM  
2360 STATIC DISCHARGE SYSTEM  
2370 AUDIO/VIDEO MONITORING

### 24 ELECTRICAL POWER

2400 ELECTRICAL POWER SYSTEM  
2410 ALTERNATOR-GENERATOR DRIVE  
2420 AC GENERATION SYSTEM  
2421 AC GENERATOR-ALTERNATOR  
2422 AC INVERTER  
2423 PHASE ADAPTER

### 24 ELECTRICAL POWER CONT'D

2424 AC REGULATOR  
2425 AC INDICATING SYSTEM  
2430 DC GENERATING SYSTEM  
2431 BATTERY OVERHEAT WARN. SYSTEM  
2432 BATTERY/CHARGER SYSTEM  
2433 DC RECTIFIER-CONVERTER  
2434 DC GENERATOR-ALTERNATOR  
2435 STARTER-GENERATOR  
2436 DC REGULATOR  
2437 DC INDICATING SYSTEM  
2440 EXTERNAL POWER SYSTEM  
2450 AC POWER DISTRIBUTION SYSTEM  
2460 DC POWER/DISTRIBUTION SYSTEM

### 25 EQUIPMENT/FURNISHINGS

2500 CABIN EQUIPMENT/FURNISHINGS  
2510 FLIGHT COMPARTMENT EQUIPMENT  
2520 PASSENGER COMPARTMENT EQUIPMENT  
2530 BUFFET/GALLEYS  
2540 LAVATORIES  
2550 CARGO COMPARTMENTS  
2551 AGRICULTURAL SPRAY SYSTEM  
2560 EMERGENCY EQUIPMENT  
2561 LIFE JACKET  
2562 EMERGENCY LOCATOR BEACON  
2563 PARACHUTE  
2564 LIFE RAFT  
2565 ESCAPE SLIDE  
2570 ACCESSORY COMPARTMENT  
2571 BATTERY BOX STRUCTURE  
2572 ELECTRONIC SHELF SECTION

## **26 FIRE PROTECTION**

2600 FIRE PROTECTION SYSTEM  
2610 DETECTION SYSTEM  
2611 SMOKE DETECTION  
2612 FIRE DETECTION  
2613 OVERHEAT DETECTION  
2620 EXTINGUISHING SYSTEM  
2621 FIRE BOTTLE, FIXED  
2622 FIRE BOTTLE, PORTABLE

## **27 FLIGHT CONTROLS**

2700 FLIGHT CONTROL SYSTEM  
2701 CONTROL COLUMN SECTION  
2710 AILERON CONTROL SYSTEM  
2711 AILERON TAB CONTROL SYSTEM  
2720 RUDDER CONTROL SYSTEM  
2721 RUDDER TAB CONTROL SYSTEM  
2722 RUDDER ACTUATOR  
2730 ELEVATOR CONTROL SYSTEM  
2731 ELEVATOR TAB CONTROL SYSTEM  
2740 STABILIZER CONTROL SYSTEM  
2741 STABILIZER POSITION INDICATING  
2742 STABILIZER ACTUATOR  
2750 TE FLAP CONTROL SYSTEM  
2751 TE FLAP POSITION IND. SYSTEM  
2752 TE FLAP ACTUATOR  
2760 DRAG CONTROL SYSTEM  
2761 DRAG CONTROL ACTUATOR  
2770 GUST LOCK/DAMPER SYSTEM  
2780 LE FLAP CONTROL SYSTEM  
2781 LE FLAP POSITION IND. SYSTEM  
2782 LE FLAP ACTUATOR

## **28 FUEL**

2800 AIRCRAFT FUEL SYSTEM  
2810 FUEL STORAGE  
2820 ACFT FUEL DISTRIB. SYSTEM  
2821 ACFT FUEL FILTER/STRAINER  
2822 FUEL BOOST PUMP  
2823 FUEL SELECTOR/SHUTOFF VALVE  
2824 FUEL TRANSFER VALVE  
2830 FUEL DUMP SYSTEM  
2840 ACFT FUEL INDICATING  
2841 FUEL QUANTITY INDICATOR  
2842 FUEL QUANTITY SENSOR  
2843 FUEL TEMPERATURE INDICATING  
2844 FUEL PRESSURE INDICATOR

## **29 HYDRAULIC POWER**

2900 HYDRAULIC POWER SYSTEM  
2910 HYDRAULIC, MAIN SYSTEM  
2911 HYDRAULIC POWER-ACCUMULATOR-MAIN  
2912 HYDRAULIC FILTER-MAIN SYSTEM  
2913 HYDRAULIC PUMP. ELECT-ENG.-MAIN  
2914 HYDRAULIC HANDPUMP-MAIN  
2915 HYDRAULIC PRESSURE RELIEF VLV-MAIN  
2916 HYDRAULIC RESERVOIR-MAIN  
2917 HYDRAULIC PRESSURE REGULATOR-MAIN  
2920 HYDRAULIC, AUXILIARY SYSTEM  
2921 HYDRAULIC ACCUMULATOR-AUXILIARY  
2922 HYDRAULIC FILTER-AUXILIARY  
2923 HYDRAULIC PUMP-AUXILIARY  
2925 HYDRAULIC PRESSURE RELIEF-AUXILIARY  
2926 HYDRAULIC RESERVOIR-AUXILIARY  
2927 HYDRAULIC PRESSURE REGULATOR-AUX.  
2930 HYDRAULIC SYSTEM INDICATING  
2931 HYDRAULIC PRESSURE INDICATOR  
2932 HYDRAULIC PRESSURE SENSOR  
2933 HYDRAULIC QUANTITY INDICATOR  
2934 HYDRAULIC QUANTITY SENSOR

## **30 ICE AND RAIN PROTECTION**

3000 ICE/RAIN PROTECTION SYSTEM  
3010 AIRFOIL ANTI/DE-ICE SYSTEM  
3020 AIR INTAKE ANTI/DE-ICE SYSTEM  
3030 PITOT/STATIC ANTI-ICE SYSTEM  
3040 WINDSHIELD/DOOR RAIN/ICE REMOVAL  
3050 ANTENNA/RADOME ANTI-ICE/DE-ICE SYSTEM  
3060 PROP/ROTOR ANTI-ICE/DE-ICE SYSTEM  
3070 WATER LINE ANTI-ICE SYSTEM  
3080 ICE DETECTION

## **31 INSTRUMENTS**

3100 INDICATING/RECORDING SYSTEM  
3110 INSTRUMENT PANEL  
3120 INDEPENDENT INSTRUMENTS (CLOCK, ETC.)  
3130 DATA RECORDERS (FLT/MAINT)  
3140 CENTRAL COMPUTERS (EICAS)  
3150 CENTRAL WARNING  
3160 CENTRAL DISPLAY  
3170 AUTOMATIC DATA

## **32 LANDING GEAR**

3200 LANDING GEAR SYSTEM  
3201 LANDING GEAR/WHEEL FAIRING  
3210 MAIN LANDING GEAR  
3211 MAIN LANDING GEAR ATTACH SECTION  
3212 EMERGENCY FLOTATION SECTION  
3213 MAIN LANDING GEAR STRUT/AXLE/TRUCK  
3220 NOSE/TAIL LANDING GEAR  
3221 NOSE/TAIL LANDING GEAR ATTACH SECTION  
3222 NOSE/TAIL LANDING GEAR STRUT/AXLE  
3230 LANDING GEAR RETRACT/EXT. SYSTEM  
3231 LANDING GEAR DOOR RETRACT SECTION  
3232 LANDING GEAR DOOR ACTUATOR  
3233 LANDING GEAR ACTUATOR  
3234 LANDING GEAR SELECTOR  
3240 LANDING GEAR BRAKE SYSTEM  
3241 BRAKE ANTI-SKID SECTION  
3242 BRAKE  
3243 MASTER CYL/BRAKE VALVE  
3244 TIRE  
3245 TIRE TUBE  
3246 WHEEL/SKI/FLOAT  
3250 LANDING GEAR STEERING SYSTEM  
3251 STEERING UNIT  
3252 SHIMMY DAMPER  
3260 LANDING GEAR POSITION & WARNING  
3270 AUXILIARY GEAR (TAIL SKID)

## **33 LIGHTS**

3300 LIGHTING SYSTEM  
3310 FLIGHT COMPARTMENT LIGHTING  
3320 PASSENGER COMPARTMENT LIGHTING  
3330 CARGO COMPARTMENT LIGHTING  
3340 EXTERIOR LIGHTING  
3350 EMERGENCY LIGHTING

## **34 NAVIGATION**

3400 NAVIGATION SYSTEM  
3410 FLIGHT ENVIRONMENT DATA  
3411 PITOT/STATIC SYSTEM  
3412 OUTSIDE AIR TEMP. IND./SENSOR  
3413 RATE OF CLIMB INDICATOR  
3414 AIRSPEED/MACH INDICATING  
3415 HIGH SPEED WARNING  
3416 ALTIMETER, BAROMETRIC/ENCODER



### **34 NAVIGATION CONT'D**

3417 AIR DATA COMPUTER  
3418 STALL WARNING SYSTEM  
3420 ATTITUDE AND DIRECTION DATA SYSTEM  
3421 ATTITUDE GYRO & IND. SYSTEM  
3422 DIRECTIONAL GYRO & IND. SYSTEM  
3423 MAGNETIC COMPASS  
3424 TURN & BANK/RATE OF TURN INDICATOR  
3425 INTEGRATED FLT. DIRECTOR SYSTEM  
3430 LANDING & TAXI AIDS  
3431 LOCALIZER/VOR SYSTEM  
3432 GLIDE SLOPE SYSTEM  
3433 MICROWAVE LANDING SYSTEM  
3434 MARKER BEACON SYSTEM  
3435 HEADS UP DISPLAY SYSTEM  
3436 WIND SHEAR DETECTION SYSTEM  
3440 INDEPENDENT POS. DETERMINING SYSTEM  
3441 INERTIAL GUIDANCE SYSTEM  
3442 WEATHER RADAR SYSTEM  
3443 DOPPLER SYSTEM  
3444 GROUND PROXIMITY SYSTEM  
3445 AIR COLLISION AVOIDANCE SYSTEM (TCAS)  
3446 NON RADAR WEATHER SYSTEM  
3450 DEPENDENT POSITION DETERMINING SYSTEM  
3451 DME/TACAN SYSTEM  
3452 ATC TRANSPONDER SYSTEM  
3453 LORAN SYSTEM  
3454 VOR SYSTEM  
3455 ADF SYSTEM  
3456 OMEGA NAVIGATION SYSTEM  
3457 GLOBAL POSITIONING SYSTEM  
3460 FLIGHT MANAGE. COMPUTING SYSTEM

### **35 OXYGEN**

3500 OXYGEN SYSTEM  
3510 CREW OXYGEN SYSTEM  
3520 PASSENGER OXYGEN SYSTEM  
3530 PORTABLE OXYGEN SYSTEM

### **36 PNEUMATIC**

3600 PNEUMATIC SYSTEM  
3610 PNEUMATIC DISTRIBUTION SYSTEM  
3620 PNEUMATIC INDICATING SYSTEM

### **37 VACUUM**

3700 VACUUM SYSTEM  
3710 VACUUM DISTRIBUTION SYSTEM  
3720 VACUUM INDICATING SYSTEM

### **38 WATER/WASTE**

3800 WATER & WASTE SYSTEM  
3810 POTABLE WATER SYSTEM  
3820 WASH WATER SYSTEM  
3830 WASTE DISPOSAL SYSTEM  
3840 AIR SUPPLY (WATER PRESS. SYSTEM)

### **45 CENTRAL MAINT. SYSTEM**

4500 CENTRAL MAINT. COMPUTER

### **49 AIRBORNE AUXILIARY POWER**

4900 AIRBORNE APU SYSTEM  
4910 APU COWLING/CONTAINMENT  
4920 APU CORE ENGINE  
4930 APU ENGINE FUEL & CONTROL  
4940 APU START/IGNITION SYSTEM  
4950 APU BLEED AIR SYSTEM  
4960 APU CONTROLS  
4970 APU INDICATING SYSTEM  
4980 APU EXHAUST SYSTEM  
4990 APU OIL SYSTEM

### **51 STANDARD PRACTICES/STRUCTURES**

5100 STANDARD PRACTICES/STRUCTURES  
5101 AIRCRAFT STRUCTURES  
5102 BALLOON REPORTS

### **52 DOORS**

5200 DOORS  
5210 PASSENGER/CREW DOORS  
5220 EMERGENCY EXIT  
5230 CARGO/BAGGAGE DOORS  
5240 SERVICE DOORS  
5241 GALLEY DOORS  
5242 E/E COMPARTMENT DOORS  
5243 HYDRAULIC COMPARTMENT DOORS  
5244 ACCESSORY COMPARTMENT DOORS  
5245 AIR CONDITIONING COMPART. DOORS  
5246 FLUID SERVICE DOORS

5247 APU DOORS  
5248 TAIL CONE DOORS  
5250 FIXED INNER DOORS  
5260 ENTRANCE STAIRS  
5270 DOOR WARNING SYSTEM  
5280 LANDING GEAR DOORS

### **53 FUSELAGE**

5300 FUSELAGE STRUCTURE (GENERAL)  
5301 AERIAL TOW EQUIPMENT  
5302 ROTORCRAFT TAIL BOOM  
5310 FUSELAGE MAIN STRUCTURE  
5311 FUSELAGE MAIN FRAME  
5312 FUSELAGE MAIN BULKHEAD  
5313 FUSELAGE MAIN LONGERON/STRINGER  
5314 FUSELAGE MAIN KEEL  
5315 FUSELAGE MAIN FLOOR BEAM  
5320 FUSELAGE MISCELLANEOUS STRUCTURE  
5321 FUSELAGE FLOOR PANEL  
5322 FUSELAGE INTERNAL MOUNT STRUCTURE  
5323 FUSELAGE INTERNAL STAIRS  
5324 FUSELAGE FIXED PARTITIONS  
5330 FUSELAGE MAIN PLATE/SKIN  
5340 FUSELAGE MAIN ATTACH FITTINGS  
5341 WING ATTACH FITTINGS (ON FUSELAGE)  
5342 STABILIZER ATTACH FITTINGS  
5343 LANDING GEAR ATTACH FITTINGS  
5344 FUSELAGE DOOR HINGES  
5345 FUSELAGE EQUIPMENT ATTACH FITTINGS  
5346 POWERPLANT ATTACH FITTINGS  
5347 SEAT/CARGO ATTACH FITTINGS  
5350 FUSELAGE AERODYNAMIC FAIRINGS

### **54 NACELLES/PYLONS**

5400 NACELLE/PYLON STRUCTURE  
5410 MAIN FRAME (ON NACELLE/PYLON)  
5411 FRAME/SPAR/RIB(NACELLE/PYLON)  
5412 BULKHEAD/FIREWALL (NAC/PYLON)  
5413 LONGERON/STRINGER (NAC/PYLON)  
5414 PLATE SKIN (NAC/PYLONS)  
5415 ATTACH FITTINGS (NAC/PYLON)

### **55 STABILIZERS**

5500 EMPENNAGE STRUCTURE  
5510 HORIZONTAL STABILIZER STRUCTURE  
5511 HORIZONTAL STABILIZER SPAR/RIB  
5512 HORIZONTAL STABILIZER PLATE/SKIN  
5513 HORIZONTAL STABILIZER TAB STRUCTURE  
5520 ELEVATOR STRUCTURE

**55 STABILIZERS CONT'D**

5521 ELEVATOR SPAR/RIB STRUCTURE  
5522 ELEVATOR PLATES/SKIN STRUCTURE  
5523 ELEVATOR TAB STRUCTURE  
5530 VERTICAL STABILIZER STRUCTURE  
5531 VERTICAL STABILIZER SPAR/RIB STRUCTURE  
5532 VERTICAL STABILIZER PLATES/SKIN  
5533 VENTRAL STRUCTURE (ON VERT. STAB)  
5540 RUDDER STRUCTURE  
5541 RUDDER SPAR/RIB STRUCTURE  
5542 RUDDER PLATE/SKIN STRUCTURE  
5543 RUDDER TAB STRUCTURE  
5550 EMPENNAGE FLT. CONT. ATTACH FITTING  
5551 HORIZONTAL STABILIZER ATTACH FITTING  
5552 ELEVATOR/TAB ATTACH FITTINGS  
5553 VERT. STAB. ATTACH FITTINGS  
5554 RUDDER/TAB ATTACH FITTINGS

**56 WINDOWS**

5600 WINDOW/WINDSHIELD SYSTEM  
5610 FLIGHT COMPARTMENT WINDOWS  
5620 PASSENGER COMPARTMENT WINDOWS  
5630 DOOR WINDOWS  
5640 INSPECTION WINDOWS

**57 WINGS**

5700 WING STRUCTURE  
5710 WING MAIN FRAME STRUCTURE  
5711 WING SPAR STRUCTURE  
5712 WING RIB STRUCTURE  
5713 WING LONGERON/STRINGER  
5714 WING CENTER BOX  
5720 WING MISCELLANEOUS STRUCTURE  
5730 WING PLATES/SKINS  
5740 WING ATTACH FITTINGS  
5741 WING, FUSELAGE ATTACH FITTINGS  
5742 WING, NAC/PYLON ATTACH FITTINGS  
5743 WING, LANDING GEAR ATTACH FITTINGS  
5744 CONTROL SURFACE ATTACH FITTINGS  
5750 WING CONTROL SURFACE STRUCTURE  
5751 AILERON STRUCTURE  
5752 AILERON TAB STRUCTURE  
5753 TE FLAP STRUCTURE  
5754 LEADING EDGE DEVICE STRUCTURE  
5755 SPOILER STRUCTURE

**61 PROPELLERS/PROPULSORS**

6100 PROPELLER SYSTEM  
6110 PROPELLER ASSEMBLY  
6111 PROPELLER BLADE SECTION  
6112 PROPELLER DE-ICE BOOT SECTION  
6113 PROPELLER SPINNER SECTION  
6114 PROPELLER HUB SECTION  
6120 PROPELLER CONTROL SYSTEM  
6121 PROPELLER SYNCHRONIZER SECTION  
6122 PROPELLER GOVERNOR  
6123 PROPELLER FEATHERING/REVERSING  
6130 PROPELLER BRAKING  
6140 PROPELLER INDICATING SYSTEM

**62 MAIN ROTOR**

6200 MAIN ROTOR SYSTEM  
6210 MAIN ROTOR BLADES  
6220 MAIN ROTOR HEAD  
6230 MAIN ROTOR MAST/SWASHPLATE  
6240 MAIN ROTOR INDICATING SYSTEM

**63 MAIN ROTOR DRIVE**

6300 MAIN ROTOR DRIVE SYSTEM  
6310 ENGINE/TRANSMISSION COUPLING  
6320 MAIN ROTOR GEARBOX  
6321 MAIN ROTOR BRAKE  
6322 ROTORCRAFT COOLING FAN SYSTEM  
6330 MAIN ROTOR TRANSMISSION MOUNT  
6340 ROTOR DRIVE INDICATING SYSTEM

**64 TAIL ROTOR**

6400 TAIL ROTOR SYSTEM  
6410 TAIL ROTOR BLADE  
6420 TAIL ROTOR HEAD  
6440 TAIL ROTOR INDICATING SYSTEM

**65 TAIL ROTOR DRIVE**

6500 TAIL ROTOR DRIVE SYSTEM  
6510 TAIL ROTOR DRIVE SHAFT  
6520 TAIL ROTOR GEARBOX  
6540 TAIL ROTOR DRIVE INDICATING SYSTEM

**67 ROTORS FLIGHT CONTROL**

6700 ROTORCRAFT FLIGHT CONTROL  
6710 MAIN ROTOR CONTROL  
6711 TILT ROTOR FLIGHT CONTROL  
6720 TAIL ROTOR CONTROL SYSTEM  
6730 ROTORCRAFT SERVO SYSTEM

**71 POWERPLANT**

7100 POWERPLANT SYSTEM  
7110 ENGINE COWLING SYSTEM  
7111 COWL FLAP SYSTEM  
7112 ENGINE AIR BAFFLE SECTION  
7120 ENGINE MOUNT SECTION  
7130 ENGINE FIRESEALS  
7160 ENGINE AIR INTAKE SYSTEM  
7170 ENGINE DRAINS

**72 TURBINE/TURBOPROP ENGINE**

7200 ENGINE (TURBINE/TURBOPROP)  
7210 TURBINE ENGINE REDUCTION GEAR  
7220 TURBINE ENGINE AIR INLET SECTION  
7230 TURBINE ENGINE COMPRESSOR SECTION  
7240 TURBINE ENGINE COMBUSTION SECTION  
7250 TURBINE SECTION  
7260 TURBINE ENGINE ACCESSORY DRIVE  
7261 TURBINE ENGINE OIL SYSTEM  
7270 TURBINE ENGINE BYPASS SECTION

**73 ENGINE FUEL & CONTROL**

7300 ENGINE FUEL & CONTROL  
7310 ENGINE FUEL DISTRIBUTION  
7311 ENGINE FUEL-OIL COOLER  
7312 FUEL HEATER  
7313 FUEL INJECTOR NOZZLE  
7314 ENGINE FUEL PUMP  
7320 FUEL CONTROLLING SYSTEM  
7321 FUEL CONTROL/ELECTRONIC  
7322 FUEL CONTROL/CARBURETOR  
7323 TURBINE GOVERNOR  
7324 FUEL DIVIDER  
7330 ENGINE FUEL INDICATING SYSTEM  
7331 FUEL FLOW INDICATING  
7332 FUEL PRESSURE INDICATING  
7333 FUEL FLOW SENSOR  
7334 FUEL PRESSURE SENSOR

#### **74 IGNITION**

7400 IGNITION SYSTEM  
7410 IGNITION POWER SUPPLY  
7411 LOW TENSION COIL  
7412 EXCITER  
7413 INDUCTION VIBRATOR  
7414 MAGNETO/DISTRIBUTOR  
7420 IGNITION HARNESS (DISTRIBUTION)  
7421 SPARK PLUG/IGNITER  
7430 IGNITION SWITCHING

#### **75 AIR**

7500 ENGINE BLEED AIR SYSTEM  
7510 ENGINE ANTI-ICING SYSTEM  
7520 ENGINE COOLING SYSTEM  
7530 COMPRESSOR BLEED CONTROL  
7531 COMPRESSOR BLEED GOVERNOR  
7532 COMPRESSOR BLEED VALVE  
7540 BLEED AIR INDICATING SYSTEM

#### **76 ENGINE CONTROLS**

7600 ENGINE CONTROLS  
7601 ENGINE SYNCHRONIZING  
7602 MIXTURE CONTROL  
7603 POWER LEVER  
7620 ENGINE EMERGENCY SHUTDOWN SYSTEM

#### **77 ENGINE INDICATING**

7700 ENGINE INDICATING SYSTEM  
7710 POWER INDICATING SYSTEM  
7711 ENGINE PRESSURE RATIO (EPR)  
7712 ENGINE BMEP/TORQUE INDICATING  
7713 MANIFOLD PRESSURE (MP) INDICATING  
7714 ENGINE RPM INDICATING SYSTEM  
7720 ENGINE TEMP. INDICATING SYSTEM  
7721 CYLINDER HEAD TEMP (CHT) INDICATING  
7722 ENG. EGT/TIT INDICATING SYSTEM  
7730 ENGINE IGNITION ANALYZER SYSTEM  
7731 ENGINE IGNITION ANALYZER  
7732 ENGINE VIBRATION ANALYZER  
7740 ENGINE INTEGRATED INSTRUMENT SYSTEM

#### **78 ENGINE EXHAUST**

7800 ENGINE EXHAUST SYSTEM  
7810 ENGINE COLLECTOR/TAILOPIPE/NOZZLE  
7820 ENGINE NOISE SUPPRESSOR  
7830 THRUST REVERSER

#### **79 ENGINE OIL**

7900 ENGINE OIL SYSTEM (AIRFRAME)  
7910 ENGINE OIL STORAGE (AIRFRAME)  
7920 ENGINE OIL DISTRIBUTION (AIRFRAME)  
7921 ENGINE OIL COOLER  
7922 ENGINE OIL TEMP. REGULATOR  
7923 OIL SHUTOFF VALVE  
7930 ENGINE OIL INDICATING SYSTEM  
7931 ENGINE OIL PRESSURE  
7932 ENGINE OIL QUANTITY  
7933 ENGINE OIL TEMPERATURE

#### **80 STARTING**

8000 ENGINE STARTING SYSTEM  
8010 ENGINE CRANKING  
8011 ENGINE STARTER  
8012 ENGINE START VALVES/CONTROLS

#### **81 TURBOCHARGING**

8100 EXHAUST TURBINE SYSTEM (RECIP)  
8110 POWER RECOVERY TURBINE (RECIP)  
8120 EXHAUST TURBOCHARGER

#### **82 WATER INJECTION**

8200 WATER INJECTION SYSTEM

#### **83 ACCESSORY GEARBOXES**

8300 ACCESSORY GEARBOXES

#### **85 RECIPROCATING ENGINE**

8500 ENGINE (RECIPROCATING)  
8510 RECIPROCATING ENGINE FRONT SECTION  
8520 RECIPROCATING ENGINE POWER SECTION

8530 RECIPROCATING ENGINE CYLINDER SECTION  
8540 RECIPROCATING ENGINE REAR SECTION  
8550 RECIPROCATING ENGINE OIL SYSTEM

## ***MECHANICS CREED***

UPON MY HONOR I swear that I shall hold in sacred trust the rights and privileges conferred upon me as a certified mechanic. Knowing full well that the safety and lives of others are dependent upon my skill and judgment, I shall never knowingly subject others to risks which I would not be willing to assume for myself, or for those dear to me.

IN DISCHARGING this trust, I pledge myself never to undertake work or approve work which I feel to be beyond the limits of my knowledge; nor shall I allow any non-certificated superior to persuade me to approve aircraft or equipment as airworthy against my better judgment; nor shall I permit my judgment to be influenced by money or other personal gain; nor shall I pass as airworthy aircraft or equipment about which I am in doubt, either as a result of direct inspection or uncertainty regarding the ability of others who have worked on it to accomplish their work satisfactorily.

I REALIZE the grave responsibility which is mine as a certified airman, to exercise my judgment on the airworthiness of aircraft and equipment. I, therefore, pledge unyielding adherence to these precepts for the advancement of aviation and for the dignity of my vocation.